

Members of Air Hygiene Foundation, as of Nov. 30, 1937

[illegible][illegible]

८३

Proc. Special Meeting, Nov. 30, 1937

Tri-State Bldg. & Loan the **Pioneers Association**
Union Pacific Company
United Fishery Corporation
United States Cable Company
United States Fidelity Association
United States Lumbering, Refining & Mining Co.
United States Steel Corporation
Lakeland Machinery Manufacturing Company
Vallier Mills & Iron Foundry
Vitreous China Pumping Fixtures Association
Waltham Clock Company
Washington Grinding Wheel Company
Washington Mills Energy Manufacturing Company
Western Sales Company
West-Maine Company
Weston Company
Western Electric Company
Whitlock Grinding Wheel Company
Winchester Air Brake Company
Winthrop Electric & Manufacturing Company
Wilbur Brothers Company
William Products, Inc.
Williams Abrasive Company
Wells New Process Abrasive Wheel, Inc.
E. J. Wood on Company
World Rail Company
Yongman Street & Lido Company

Franklin Office and Company
Belmont, Massachusetts Company
Freeman Grinding Wheel Co., Inc.
Genco Company
Harbort-Sturges Company
Kaiser Building Company
K. H. Edwards Company
Kelly Building Wheel & Machine Co.
Knapp & Abbott Company
Knapp-Palmer Company
Lehigh Valley Company
Merrill Furniture Company
Merrill-Wooden Wheel Company
Minnesota Engineering Company
North Packing & Supply Company
Orbit Process Company
Reynolds Fire Alloys Company
Sanborn Lead Company
Shawmut Abrasive Wheel Company
Shawmut Grinding Wheel Company
Shawmut Manufacturing Co.
Shawmut Grinding Wheel Company
Shawmut Fire Brick Company
Shawmut Pipe Brick Company
Shawmut Tube Brick Company
The Taper, Smith & Taylor Company
Clark, Taylor & Sons Company
Thom Abrasive Company
Thom Pottery, Inc.

66

PLAINTIFF'S
EXHIBIT
IHF-276

DEPOSITION
EXHIBIT
11f. No.38
1/29/86

**DEPOSITION
EXHIBIT**

11f. No. 38
1/29/86

1940

REPORT OF MEMBERSHIP COMMITTEE

C. E. RALSTON,* Chairman

Eleven new members affiliated with Air Hygiene Foundation during past year. The new members are:

Allegheny Pittsburgh Coal Company
American Mutual Liability Insurance Company
Calco Chemical Company
Colorado Mining Association
Industrial Tape Corporation
Liberty Mutual Insurance Company
Maryland Self-Insurers' Association
Powers X-ray Products, Inc.
Pullman Company
Rustless Iron and Steel Corporation
Toledo Scale Company

Meanwhile, eleven companies failed to renew their membership in January. With the business upturn—increased production creating increased need for health protection—a number of these companies are expected to return to the fold.

While the resignations balanced the additions, maintaining the membership at 225 companies, there was an increase of about \$400 a year in income. This is accounted for by the fact that most of the companies that resigned were small firms. Six of them were in the \$50 a year bracket, whereas most of the new members are larger companies in the higher bracket.

As Dr. Meller has announced, there has been a pronounced increase in the Foundation's survey service to its members during the year. This is a significant development. It links the benefits of Foundation membership more firmly with every-day plant operations. An industrial concern does not know its health hazards, or its lack of them, and have this information in a scientific, specific form, is like a company that does not know its costs. Industrial hygiene surveys are simply inventories. Like inventories they must be made periodically. The advantages of such a procedure are manifold.

In case of claims, you have a record showing what the health hazards actually were at the time of alleged injury. That is, you have this information if you have been making periodic checks over a period of time. The report you receive from the Foundation removes the "guess work" and speculation as to whether there was or wasn't a hazard at the time of injury. Further, as Mr. Fletcher pointed out here a year ago, a survey report from an outside, independent agency carries more weight in Court or before a compensation commission than does a report prepared by your own company. In other words, an outside party can talk with greater weight about it than you can talk about yourself.

You all know man's capacity for spreading rumor, how tales grow

* Safety Director, Pittsburgh Plate Glass Company.

Proc. 54th Ann. Meeting, Nov 12-13, 1940

1941

REPORT OF THE MEMBERSHIP COMMITTEE

C. E. RALSTON, Chairman

Thirteen companies have affiliated with the Foundation, thus far this year. They are:

Corhart Refractories Company
General Motors Corporation
Hazel-Atlas Glass Company
International Business Machines Company
Merck & Company
Miamisburg Paper Company
Michigan Mutual Liability Company
Neville Company
Pittsburgh Clay Pot Company
Plaskon Company
Pyrene Manufacturing Company
Standard Lime and Stone Company
Toledo Edison Company

Two of the above are old members who dropped out during lean years but renewed their memberships during 1941. Meanwhile, four companies resigned during the year.

It will be impossible to make a full report on membership work until the end of the year. A campaign for new members is now in progress and we have reason to be optimistic about its results. Mr. Lewis H. Brown, President of Johns-Manville Corporation, which has held membership since the Foundation was started, has kindly agreed to assist us in the undertaking. The campaign has been necessarily held up by the fact that the Foundation has been in the process of changing its name. That change was advocated by the Membership Committee, as well as many other persons interested in the Foundation, at the meeting here one year ago. After circularizing the membership, and after the due processes of the law, the change from Air Hygiene Foundation to Industrial Hygiene Foundation became official only recently. In fact there are still some final legalities to be disposed of at a business session here today.

Increasing industrial activity tends to increase health hazards—and at a time when the nation sorely needs maximum manpower. Therefore, the work of the Foundation is more important now than ever before. It helps companies keep precautions apace with production, which is the only way we can offset the increases in sick absences and occupational disease which inevitably accompany an increase in the industrial tempo.

In endeavoring to fulfill this important function—keeping precautions a step with production—the Foundation is performing more and more field work for its member companies. During the past year our industrial hygienist, Mr. Mallette, covered approximately 25,000 miles in making plant surveys and “trouble shooting” where new processes were being installed. New materials introduced with questionable health effects. Survey work was performed in seven states.

In August, the staff hygienist flew 2,700 miles in three days covering

Safety Director, Pittsburgh Plate Glass Company

*Proc. 6th Ann. Meeting
Nov. 12-13, 1941*

1942

New Members

During 1942, 11 more companies and associations affiliated with Industrial Hygiene Foundation in the organization's efforts to promote healthful working conditions, namely:

General Motors Corporation	Koppers Company
Flintkote Company	General Refractories Company
Owens-Corning Fiberglass Corp.	Demore Chair Company
Employers Mutual Liability Insurance Co.	Strathmore Paper Company
Dresser Manufacturing Company	Davison Chemical Company
Pacific Coast Association Pulp and Paper Manufacturers	

There are now 246 company and association members in the Foundation. These organizations, practically all of them directly engaged in war production, employ between 2 and 3 million war workers.

Plant Hygiene Surveys

The introduction of unfamiliar and new chemicals in manufacturing processes, some with little known toxic effects, is demanding even greater attention to plant hygiene measures. Meanwhile the dermatoses continue to be the most common of all occupational diseases.

The Foundation has conducted more plant hygiene surveys than in any previous year. These investigations, supervised by Frank R. Holden, check on the possible existence of health hazards in the workplaces. If hazards are detected, effectual measures are devised for their correction. Besides fostering healthful working conditions, the Foundation's plant surveys are proving to be an increasing factor in advancing harmonious labor relations, helping to eliminate working conditions which are often sources of discontent, such as nuisance dusts and fumes.

The Foundation collaborates actively with governmental agencies, both state and federal, which are interested in industrial health. One evidence of this cooperation is the subscription classification started early in the year whereby governmental agencies can secure all Foundation publications at less than cost. Since this arrangement was initiated 12 months ago, 4 federal agencies including Army and Navy, 22 states, and 5 cities have subscribed for Foundation literature. Meanwhile, 3 universities and 4 private specialists have also availed themselves of this material.

Research

The Foundation has continued to support medical and engineering research in industrial health with grants to The Saranac Laboratory, University of Pennsylvania and Harvard School of Public Health. Findings from these studies have been published. Then, too, an important study in toxicology is under way for a member company at Mellon Institute.

Publications

Two medical and two engineering bulletins have been issued to members during the year. These publications, giving the results of research are as follows:

1. Comparison of Stereoscopic Miniature Chest Films, Single Roentgenograms on Paper, and Single Roentgenograms on Large Films.

Proc. 74th Ann. Meeting, Nov. 10-11-1942

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

Abingdon Sanitary Manufacturing Co.
Abrasive Company
Abrasive Division, U. S. Rubber Company
Abrasive Products Company
Allegheny Ludlum Steel Corporation
Allegheny Pittsburgh Coal Company
Allis-Chalmers Manufacturing Corp.
The Allison Company
Aluminum Company of America
American Abrasive Company
American Air Filter Company, Inc.
American Brake Shoe Company
American Cyanamid Company
American Emery Wheel Works
American Iron & Steel Institute
American Mining Congress
American Mutual Liability Insurance Co.
American Optical Company
American Radiator & Standard Sanitary Corporation
American Refractories Institute
American Smelting & Refining Company
American Zinc Institute
American Zinc Lead & Smelting Company
Ancrode Copper Mining Company
Ass'n of Casualty & Surety Executives
Automobile Manufacturers Association
Ball Brothers Company
Bartlett-Collins Company
Bay State Abrasive Products Company
Bethlehem Steel Company, Inc.
Bird & Son, Inc.
Bridgeport Safety Emery Wheel Company
Bunker Hill & Sullivan Mining & Concentrating Company
The Carborundum Company
Central Silica Company
Chicago Wheel & Manufacturing Company
Climax Molybdenum Company
Robert F. Coleman, Inc.
The Colorado Mining Association
Consolidated Mining & Smelting Company of Canada, Ltd.
Corhart Refractories Company
Corning Glass Works
Cortland Grinding Wheel Corporation
Davison Chemical Corporation
Deckers Creek Sand Company
Denver Fire Clay Company
A. P. deSanno & Son, Inc.
Detroit-Star Grinding Wheel Company
Diamond Alkali Company
Domore Chair Company, Inc.
Dow Chemical Company
B. F. Drakenfeld Company
Dravo Corporation
Eagle-Picher Lead Company
Ebasco Services, Inc.
Electro Refractories & Alloys Corporation
Employers Mutual Liability Insurance Co.
Ethyl Corporation
Eureka Flint & Spar Company, Inc.
Exxon Company
The Falk Corporation
Firestone Tire & Rubber Company
Firth Sterling Steel Company
The Flintkote Company
Foote Mineral Company
Foundry Supply Manufacturers Ass'n
Fraser-Simms, Inc.
Fuller Merriam Company
Galvin Manufacturing Company
Garco Products, Inc.
Gardner Machine Company
General Abrasive Company, Inc.
General Grinding Wheels Corporation
General Motors Corporation
General Refractories Company
Glass Container Association
Glenabaw Glass Company, Inc.
Grinding Wheel Manufacturers Ass'n
The Hall China Company
Hamilton Emery & Corundum Company
Hamden Grinding Wheel Company
Hawley Products Company
Hazel-Atlas Glass Company
Hercia Mining Company
Hercules Powder Company
John W. Higman Company
O. Hommel Company
Mauricio Hochschild S. A. M. I.
Industrial Silica Corporation
Industrial Tape Corporation
International Business Machines Corp.
International Nickel Company, Inc.
Jack & Heints, Inc.
Jackson Mills Emery Company
Jamison Coal & Coke Company
Johns-Manville Corporation
Jones & Laughlin Steel Corporation
Keystone Emery Mills
Kimble Glass Company
The Kirk & Blum Manufacturing Company
Knapp Company
Homer Laughlin China Company
Lava Crucible Company of Pittsburgh
E. J. Lavino & Company
Lead Industries Association
Liberty Mutual Insurance Company
Mackintosh-Hemphill Company
Macklin Company
Magma Copper Company
Maryland Self-Insurers' Association
Merck & Company, Inc.
Mexican Refractories Company
The Miami-Burg Paper Company
Michigan Mutual Liability Company
Mid-West Abrasive Company
Mine Safety Appliances Company
Monsanto Chemical Company
Mutual Chemical Company of America
J. S. McCormick Company
National Crushed Stone Association
National Grinding Wheel Company
National Industrial Sand Association
National Lead Company
National Flax Association
The Neville Company
New Jersey Zinc Company
North American Refractories Company
Norton Company
Norton Pike Company
Ontario Mining Association
Oriental Emery Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois Glass Company
Pacific Coast Association of Pulp & Paper Manufacturers
Paninular Grinding Wheel Company
Penn-Rillon Company
Pennsylvania Glass Sand Corporation
Phelps Dodge Corporation
Pittsburgh Coal Company
Pittsburgh Plate Glass Company
Plaskon Division, Libbey-Owens-Franklin
Portland Cement Association
Powers X-Ray Products, Inc.

MEMBERS OF IN

Precision Grinding Wheel Co.
The Pullman Company
Pullman-Standard Car Manuf.
Pyrene Manufacturing Company
Raybestos-Manhattan, Inc.
Smith Mining Corporation
M. H. Robertson Company
Safety First Supply Company
Safety Grinding Wheel & Block
Charles H. Schneible Company
Joseph E. Seagram & Sons, Inc.
Shenango Furnace Company
Simonds Worden White Company
Sulway Process Company
South West Box Company
St. Joseph Lead Company
Standard Abrasive Wheel Co.
Standard Lime & Stone Company
Sterling Grinding Wheel Company
Sturton Fire Brick Company
The Sun Rubber Company
Texas Gulf Sulphur Company
Titan Abrasives Company
Tuldo Edison Company
Tuldo Scale Company
Trenton Pottery Company
Tri-Rite Zinc & Lead Ore Treatment Association

FEDERAL GOVERNMENT

All Service Command, Fairchild
Bureau of Medicine & Surgery
Chief of Ordnance, Chicago, Ill.
Industrial Hygiene Service, Oklahoma City, Okla.
Industrial Safety Division, War Relocation Authority, Alabama
Industrial Hygiene Laboratory, Baltimore, Md.
Medical Supply Officer, Fort M. Navy Yard, Charleston, S. C.
Shore Establishments Div., Navy
Tennessee Valley Authority
U. S. Public Health Service

STATES

Department of Health, California
Department of Health, Connecticut
Department of Health, Georgia
Department of Health, Idaho
Department of Health, Illinois
Department of Health, Indiana
Department of Health, Iowa
Department of Health, Kansas
Department of Health, Louisiana
Department of Health, Maryland
Department of Health, Massachusetts
Department of Health, Minnesota
Department of Health, Missouri
Department of Health, Montana
Department of Labor, New York
Department of Health, Ohio
Department of Health, Oklahoma
Department of Labor & Industry, Pennsylvania
Department of Health, Tennessee
Department of Health, Texas
Department of Health, Utah
Department of Health, Vermont
Department of Health, Virginia
Department of Health, West Virginia
Industrial Commission of Ohio

* Multiple Membership

INDUSTRIAL HYGIENE FOUNDATION

Waltham Grinding Wheel Company, Inc.
 Pullman Company
 Pullman-Standard Car Manufacturing Co.
 Raytheon Manufacturing Company
 Raytheon-Maschallan, Inc.
 Saco Mining Corporation
 H. H. Robertson Company
 Safety First Supply Company
 Safety Grinding Wheel & Machine Co.
 H. K. Schneible Company
 Joseph T. Seagram & Sons, Inc.
 Exchange Furnace Company
 Standard Worden White Company
 Schuyler Process Company
 South West Box Company
 or South Lead Company
 Standard Abrasive Wheel Company
 Standard Lime & Stone Company
 Standard Grinding Wheel Company
 The Sun Fire Brick Company
 The Sun Rubber Company
 Texas Gulf Sulphur Company
 Texas Abrasives Company
 T. A. Edison Company
 T. A. Scale Company
 T. A. Pottery Company
 T. A. Zinc & Lead Ore Producers
 Association

Union Carbide & Carbon Corporation
 United Engineering & Foundry Company
 United States Pottery Association
 United States Smelting Refining & Mining
 Company
 United States Steel Corporation of Del.
 Universal Sanitary Manufacturing Co.
 Utah Copper Company
 Utilites Research Commission*
 Valley Mould & Iron Corporation
 Vanadium Corporation of America
 Vesuvius Crucible Company
 Vitrified Wheel Company
 Waltham Grinding Wheel Company
 Washington Mills Abrasive Company
 Wedron Silica Company
 The S. K. Wellman Company
 West Company
 Western Precipitation Corporation
 Westfield Grinding Wheel Company
 Westinghouse Air Brake Company
 Westinghouse Electric & Mfg. Company
 Whitehead Brothers Company
 Willson Products, Inc.
 Wisconsin Abrasive Company
 Wolf's New Process Abrasive Wheel, Inc.
 Youngtown Sheet & Tube Company

SUBSCRIBERS

FEDERAL GOVERNMENT

Service Command, Fairfield, Ohio.
 Bureau of Medicine & Surgery, Navy Dept.
 Bureau of Ordnance, Chicago, Ill.
 Industrial Hygiene Service, Oklahoma
 City, Okla.
 Industrial Safety Division, Huntsville
 Arsenal, Alabama
 Industrial Hygiene Laboratory,
 Baltimore, Md.
 Industrial Supply Officer, Fort Mason, Cal.
 West Yard, Charleston, S. C.
 Naval Establishments Div. Navy Dept.
 Tennessee Valley Authority
 U. S. Public Health Service

STATES

Department of Health, California
 Department of Health, Connecticut
 Department of Health, Georgia
 Department of Health, Idaho
 Department of Health, Illinois
 Department of Health, Indiana
 Department of Health, Iowa
 Department of Health, Kansas
 Department of Health, Louisiana
 Department of Health, Maryland
 Department of Health, Missouri
 Department of Health, Montana
 Department of Labor, New York
 Department of Health, Ohio
 Department of Health, Oklahoma
 Department of Labor & Industry,
 Pennsylvania
 Department of Health, Tennessee
 Department of Health, Texas
 Department of Health, Utah
 Department of Health, Vermont
 Department of Health, Virginia
 Department of Health, West Virginia
 Department of Health, Wisconsin
 Central Commission of Ohio

CITIES

Department of Health, Baltimore, Md.
 Department of Health, Detroit, Mich.
 Department of Health, St. Louis, Mo.

OTHERS

Dr. Elston L. Belknap
 Dr. Charles Kemm Good
 Dr. J. W. G. Hannon
 Dr. E. R. Hayhurst
 Dr. N. P. Henderson
 Mr. J. H. Holden
 Dr. Hedwig S. Kuhn
 Dr. Geo. E. Morris
 Dr. E. D. McDonell
 Dr. C. O. Sandington
 Johns Hopkins University
 University of Colorado
 Medical Administration Service

FOREIGN

Department of Pensions & Health,
 Ottawa, Canada
 Department of Health & Public Welfare,
 Winnipeg, Canada
 British Ministry of Supply Mission
 International Labor Office, Montreal
 Medical Research Council, London
 Ministère Santé & B. E. Social Hyg.
 Quebec, Canada
 Netherlands Government Commission for
 Scientific Documentation

* Multiple Membership

— A —
 Alabaster Products, Inc.
 Abrasive Company
 Abrasive Division, U. S. Rubber Company
 Abrasive Grain Association
 Abrasive Products Company
 Allegheny Ludlum Steel Corporation
 Allegheny Pittsburgh Coal Company
 Allied Chemicals Manufacturing Corp.
 The Allison Company
 Aluminum Company of America
 American Abrasive Company
 American Air Filter Company, Inc.
 American Brake Shoe Company
 American Cyanamid Company
 American Emery Wheel Works
 American Iron & Steel Institute
 American Mining Congress
 American Optical Company
 American Radiator & Standard
 Sanitary Corporation
 American Refractories Institute
 American Smelting & Refining Company
 American Zinc Institute
 American Zinc, Lead & Smelting Company
 American Copper Mining Company
 Arrow Mutual Liability Insurance Co.
 Association of Casualty & Surety Executives
 Automobile Manufacturers Association

— B —
 Bell Brothers Company
 Bartlett Collins Company
 Bay State Abrasive Products Company
 Bethlehem Steel Company, Inc.
 Bird & Son, Inc.
 Bridgeport Safety Emery Wheel Company
 Bruckner Hill & Sullivan Mining &
 Concentrating Company

— C —
 Canadian General Rubber Company, Ltd.
 The Carborundum Company
 Central Sales Company
 Chicago Wheel & Manufacturing Company
 Chimax Molybdenum Company
 Robert F. Coleman, Inc.
 The Colorado Mining Association
 Consolidated Mining & Smelting Company
 of Canada, Ltd.
 Copper-Bessemer Corporation
 Corhart Refractories Company
 Corning Glass Works
 Cortland Grinding Wheels Corporation

— D —
 Davison Chemical Corporation
 Deckers Creek Sand Company
 Denver Fire Clay Company
 A. P. DeSanto & Son, Inc.
 Detroit-Star Grinding Wheel Company
 Dinkel Corporation

— E —
 Diamond Alkali Company
 Diesel Aircraft Company, Inc.
 Diamond Chain Company, Inc.
 Dow Chemical Company
 R. F. Drankoff Company
 Dravo Corporation

— F —
 Eagle-Picher Lead Company
 Elmer Services, Inc.
 Electro Refractories & Alloys Corp.
 Elgin Company
 Ethyl Corporation
 Eureka Flint & Spar Company, Inc.
 Exelon Company

— G —
 The Falk Corporation
 Firestone Tire & Rubber Company
 Fifth Star Steel Company
 The Flintkote Company
 Fiske Mineral Company
 Foundry Supply Manufacturers &
 Brazier-Simpson, Inc.
 Fuller Merriam Company

— H —
 Galvin Manufacturing Corporation
 Gares Products, Inc.
 Gardner Machine Company
 General Abrasive Company, Inc.
 General Aniline & Film Corporation
 General Grinding Wheel Corporation
 General Motors Corporation
 General Refractories Company
 Glenhew Glass Company, Inc.
 A. T. Green Fire Brick Company
 Grinding Wheel Manufacturers Association

— I —
 The Hall China Company
 Hamilton Emery & Corundum
 Hampden Grinding Wheel Co.
 Hawley Products Company
 Hazel-Atlas Glass Company
 Hecla Mining Company
 Hercules Powder Company
 John W. Higman Company
 Heinrich Heischbild S. A. M. I.
 O. Hummel Company

— J —
 Industrial Silica Corporation
 Industrial Tape Corporation
 International Business Machines
 International Nickel Company

— K —
 Jackson Mills Emery Company
 Jamison Coal & Coke Company
 Johns-Manville Corporation
 Jones & Laughlin Steel Company

— L —
 Laminated Glass Company
 Laminated Glass Company
 L. F. Lankford Company
 L. F. Lankford Company

— M —
 Macmillan Chemical Company
 Macmillan Chemical Company
 Macmillan Chemical Company
 Macmillan Chemical Company

— N —
 National Association of Manufacturers
 National Association of Manufacturers

— O —
 Olin Corporation
 Olin Corporation
 Olin Corporation
 Olin Corporation

— P —
 Pacific Portland Cement Association
 Pacific Portland Cement Association

— Q —
 Quincy Portland Cement Association
 Quincy Portland Cement Association

— R —
 Raychem Corporation
 Raychem Corporation

— S —
 S. S. White Company
 S. S. White Company

— T —
 T. W. Hill Company
 T. W. Hill Company

— U —
 Union Carbide Corporation
 Union Carbide Corporation

— V —
 V. I. Chemical Corporation
 V. I. Chemical Corporation

— W —
 W. A. Rorer Company
 W. A. Rorer Company

— X —
 Xerox Corporation
 Xerox Corporation

— Y —
 Y. I. Chemical Corporation
 Y. I. Chemical Corporation

— Z —
 Z. I. Chemical Corporation
 Z. I. Chemical Corporation

* Multiple Membership

FOUNDATION

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— K —
 Kayser, Inc.
 Kayser Lumber Mills
 Kayser Glass Company
 Kay & Blum Manufacturing Company
 Kay Company

— L —
 Laughlin China Company
 Leach Company of Pittsburgh
 Leach & Company
 Leach Industries Association

— M —
 Macdonald-Henryhill Company
 Macdonald Company
 Macdonald & Company
 Macdonald Self-Insurance Association
 Macdonald Life Insurance Company
 Macdonald Refractories Company
 Macdonald Abrasive Company
 Macdonald Appliances Company
 Macdonald Chemical Company
 Macdonald Chemical Company of America

— Mc —
 Mc Donnell & Company

— N —
 National Association of Mutual Casualty Companies
 National Crushed Stone Association, Inc.
 National Grinding Wheel Company
 National Industrial Sand Association
 National Lead Company
 National Sand & Gravel Association
 National Slag Association
 National Sulfur Company
 National Zinc Company
 National American Refractories Company
 National Company
 National Pipe Company

— O —
 Ohio Mining Association
 Ohio Knives Company
 Ohio Silica Company
 Ohio Fiberglass Corporation
 Ohio Glass Company

— P —
 Pacific Grinding Wheel Company
 Pacific Glass Company
 Pacific Glass Sand Corporation
 Pacific Insulator Corporation
 Pacific Coal Company
 Pacific Plate Glass Company
 Pacific Division, Libby-Owens-Ford Co.
 Pacific Corporation
 Pacific Cement Association
 Pacific Products, Inc.
 Pacific Grinding Wheel Company, Inc.
 Pacific Pullman Company
 Pacific Manufacturing Company

Raybestos-Manhattan, Inc.
 Republic Steel Corporation
 Rialto Mining Corporation
 R. H. Robertson Company

— S —
 Safety First Supply Company
 Safety Grinding Wheel & Machine Co.
 Claude H. Schenck Company
 Scott Aviation Corporation
 Joseph E. Seagram & Sons, Inc.
 Shenango Furnace Company
 Simonds Warden White Company
 South West Box Company
 St. Joseph Lead Company
 Standard Abrasive Wheel Company
 Standard Lime & Stone Company
 Sterling Grinding Wheel Company
 The Sun Rubber Company

— T —
 Texas Gulf Sulphur Company
 Titan Abrasives Company
 Toledo Edison Company
 Toledo Scale Company
 Trenton Batteries Company
 Tri-State Zinc & Lead Ore Producers Association

— U —
 Union Asbestos & Rubber Company
 Union Carbide & Carbon Corporation
 United States Pottery Association
 United States Smelting Refining & Mining Company
 United States Steel Corporation of Del.
 Universal Sanitary Manufacturing Co.
 Utah Copper Company
 Utilities Research Commission

— V —
 Valley Mould & Iron Corporation
 Van Cleef Bros.
 Vanadium Corporation of America
 Vauxhall Crankshaft Company
 Vortice Wheel Company

— W —
 Waltham Grinding Wheel Company
 Washington Mills Abrasive Company
 Western Silica Company
 West Company
 West Virginia Manufacturers' Association
 Western Precipitation Corporation
 Westfield Grinding Wheel Company
 Westinghouse Air Brake Company
 Westinghouse Electric Corporation
 Whitehead Brothers Company
 Willson Products, Inc.
 Winthrop Chemical Company, Inc.
 Wisconsin Abrasive Company
 Wolf's New Process Abrasive Wheel, Inc.

— Y —
 Youngstown Sheet & Tube Company

* Multiple Membership

— A —
 Jordon Pottery, Inc.
 Abrasive Division, U. S. Rubber Company
 Abrasive Grain Association
 Abrasive Products Company
 Allegheny Ludlum Steel Corporation
 Allegheny Pittsburgh Coal Company
 Allis-Chalmers Manufacturing Corp.
 Aluminum Company of America
 American Abrasive Company
 American Air Filter Company, Inc.
 American Brake Shoe Company
 American Cyanamid Company
 American Emery Wheel Works
 American Iron & Steel Institute
 American Machine Company
 American Machine & Tool Company
 American Radiator & Standard
 Sanitary Corporation
 American Refractories Institute
 American Smelting & Refining Company
 American Zinc, Lead & Smelting Company
 Anasconda Copper Mining Company
 Arrow Mutual Liability Insurance Co.
 Ass'n of Casualty & Surety Executives
 Automobile Manufacturers Association

— B —
 Bail Brothers Company
 Bartlett-Collins Company
 Bay State Abrasive Products Company
 Bethlehem Steel Company, Inc.
 Bird & Son, Inc.
 Bridgport Safety Linery Wheel Company
 Bunker Hill & Sullivan Mining &
 Concentrating Company

— C —
 Canadian General Rubber Company, Ltd.
 The Carborundum Company
 Central Silica Company
 Chicago Wheel & Manufacturing Company
 Climax Molybdenum Company
 Robert F. Coleman, Inc.
 The Colorado Mining Association
 Consolidated Mining & Smelting Company
 of Canada, Ltd.
 Cooper-Bessemer Corporation
 Corhart Refractories Company
 Corning Glass Works
 Cortland Grinding Wheels Corporation

— D —
 Davison Chemical Corporation
 Deckers Creek Sand Company
 A. F. DeSanne & Son, Inc.
 Detroit-Bar Grinding Wheel Company
 Duckel Corporation

— E —
 Diamond Alkali Company
 Duak Aircraft Company, Inc.
 Eow Chemical Company
 B. F. Drakenfeld Company
 Dravo Corporation
 Eagle-Picher Company
 Ebaron Services, Inc.
 Electro Refractories & Alloya Corporation
 Elmer Company
 Elmer Corporation
 Eureka Flint & Spar Company, Inc.
 Exelon Company

— F —
 The Falk Corporation
 Fifth Sterling Steel Company
 Foote Mineral Company
 Foundry Supply Manufacturers Ass'n
 Fraiser-Simoles, Inc.
 Fuller Steamship Company

— G —
 Galva Manufacturing Corporation
 Garco Products, Inc.
 Gardner Machine Company
 General Abrasive Company, Inc.
 General Aniline & Film Corporation
 General Grinding Wheel Corporation
 General Motors Corporation
 General Refractories Company
 Glenahaw Glass Company, Inc.
 A. P. Green Fire Brick Company
 Grinding Wheel Manufacturers Ass'n

— H —
 The Hall China Company
 Hamilton Emery & Corundum Company
 Hamgden Grinding Wheel Company
 Hawley Products Company
 Hazel-Atlas Glass Company
 Hercules Powder Company
 John W. Hergen Company
 Hauvick Hochschild S. A. M. I.
 O. Hommel Company

— I —
 Industrial Silica Corporation
 International Business Machines Corp.
 International Nickel Company, Inc.

— J —
 Jackson Mills Emery Company
 Jamison Coal & Coke Company
 Johns-Manville Corporation
 Jones & Laughlin Steel Corporation

— K —
 Kasebey and Martin Company
 Kankametel, Inc.
 Kaystone Linery Mills
 Kaytile Glass Company
 The Kirk & Blum Manufacturing Company
 Koppers Company

— L —
 Lehigh-Lancaster China Company
 Lehigh Crucible Company of Pittsburgh
 L. J. Lanning & Company
 Lead Industries Association

— M —
 MacIntosh-Hemphill Company
 Macklin Company
 Magnus Copper Company
 Maryland Self-Insurers' Association
 Metropolitan Life Insurance Company
 Metrop Refractories Company
 Mid-West Abrasive Company
 Mint Safety Appliances Company
 Monahan Chemical Company
 Mutual Chemical Company of America

— Mc —
 J. F. McCormick Company

— N —
 National Association of Mutual Casualty
 Companies
 National Crushed Stone Association, Inc.
 National Grinding Wheel Company
 National Industrial Sand Association
 National Lead Company
 National Sand & Gravel Association
 National Slag Association
 The Neville Company
 New Jersey Zinc Company
 North American Refractories Company
 Norton Company
 Norton Pike Company

— O —
 Ontario Mining Association
 Oriental Abrasive Company
 Ottawa Silica Company
 Owen-Corning Fiberglass Corporation
 Owen-Illinois Glass Company

— P —
 Polaroid Grinding Wheel Company
 Polysilicon Company
 Pennsylvania Glass Sand Corporation
 Picher Ledge Corporation
 Pittsburgh Coal Company
 Pittsburgh Plate Glass Company
 Pullman Division, Libby-Owens-Ford Co.
 Pullman Corporation

— R —
 Portland Cement Association
 Refractory Research Corporation
 Powers X-Ray Products, Inc.
 Precision Grinding Wheel Company, Inc.
 The Pullman Company
 Pyrite Manufacturing Company

— R —
 Raybestos-Manhattan, Inc.
 Republic Steel Corporation
 Riole Mining Corporation
 R. H. Robertson Company
 Robertson Manufacturing Company

— S —
 Safety First Supply Company
 Safety Grinding Wheel & Machine Co.
 Claude H. Schuette Company
 Scott Aviation Corporation
 Shenango Furnace Company
 Simonds Abrasive Company
 Simonds Worden White Company
 South West Box Company
 St. Joseph Lead Company
 Standard Lime & Stone Company
 Sterling Grinding Wheel Company

— T —
 Tennessee Copper Company
 Texas Gulf Sulphur Company
 Titan Abrasives Company
 Toledo Edison Company
 Trenton Pottery Company
 Tri-State Zinc & Lead Producers
 Association

— U —
 Union Asbestos & Rubber Company
 Union Carbide & Carbon Corporation
 United States Felt Association
 United States Smelting, Refining & Mining
 Company
 United States Steel Corporation of Del.
 Universal Sanitary Manufacturing Co.
 Utah Copper Company
 Utilities Research Commission

— V —
 Valley Mould & Iron Corporation
 Van Cleaf Bros.
 Vanadium Corporation of America
 Versus Crucible Company
 Vitrified Wheel Company

— W —
 Waltham Grinding Wheel Company
 Washington Mill Abrasive Company
 West Virginia Manufacturing
 Association
 Western Precipitation Corporation
 Westfield Grinding Wheel Company
 Weatherhouse Air Brake Company
 Weatherhouse Electric Corporation
 Whitehead Brothers Company
 Wilcox Products, Inc.
 Winthrop Chemical Company, Inc.
 Wisconsin Abrasive Company
 Wolf's New Process Abrasive Wheel, Inc.

— Y —
 Youngstown Sheet & Tube Company

Transactions, Bull # 8,
11th Ann. Meeting, Nov. 7, 1946.

1946

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— A —

Abingdon Potteries, Inc.
Abrasive Division, U. S. Rubber Company
Abrasive Grain Association
Abrasive Products Company
Allegheny Ludlum Steel Corporation
Allegheny Pittsburgh Coal Company
Allis-Chalmers Manufacturing Company
Aluminum Company of America
Amalgamated Anthracite Collieries, Ltd.
American Abrasive Company
American Air Filter Company, Inc.
American Brake Shoe Company
American Can Company
American Cyanamid Company
American Emery Wheel Works
American Foundry Equipment Company
American Iron & Steel Institute
American Mining Congress
American Optical Company
American Radiator & Standard
Sanitary Corporation
American Refractories Institute
American Smelting & Refining Company
American Zinc Institute
American Zinc, Lead & Smelting Company
Anaconda Copper Mining Company
Anthracite Institute
Arrow Mutual Liability Insurance Company
Assoc. of Casualty & Surety Executives*
Austin Motor Co., Ltd.
Automobile Manufacturers Association

— B —

Ball Brothers Company
Bartlett-Collins Company
Bay State Abrasive Products Company
Bethlehem Steel Company, Inc.
Bird & Son, Inc.
Bituminous Casualty Corporation
Bridgeport Safety Emery Wheel Company
Brush Beryllium Company
Bunker Hill & Sullivan Mining &
Concentrating Company

* Multiple Membership

— C —

Canadian General Rubber Company, Ltd.
The Carborundum Company
Caterpillar Tractor Company
Central Silica Company
Chicago Wheel & Manufacturing Company
Robert F. Coleman, Inc.
The Colorado Mining Association
Consolidated Mining & Smelting Company
of Canada, Ltd.
Cooper-Bessemer Corporation
Corhart Refractories Company
Corning Glass Works
Cortland Grinding Wheels Corporation

— D —

Davison Chemical Corporation
Deckers Creek Sand Company
A. P. DeSanno & Son, Inc.
Detroit-Star Grinding Wheel Company
Diakel Corporation
Diamond Alkali Company
Dow Chemical Company
B. F. Drakenfeld Company
Dravo Corporation

— E —

Eagle-Picher Company
Eastern Gas and Fuel Associates
Ebasco Services, Inc.
Electro Refractories & Alloys Corporation
Eijer Company
Ethyl Corporation
Eureka Flint & Spar Company, Inc.
Exolon Company

— F —

The Falk Corporation
Firth Sterling Steel Company
H. E. Fletcher Company
Foote Mineral Company
Ford Motor Company
Foundry Supply Manufacturers Assoc.
Frazier-Simplex, Inc.
Fuller Merriam Company
The Funkhouser Company

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— G —

Garco Products, Inc.
Gardner Machine Company
General Abrasive Company, Inc.
General Aniline & Film Corporation
General Grinding Wheels Corporation
General Motors Corporation
General Refractories Company
Glenshaw Glass Company, Inc.
A. P. Green Fire Brick Company
Grinding Wheel Manufacturers Assoc.

— H —

The Hall China Company
Hamilton Emery & Corundum Company
Hampton Grinding Wheel Company
Hawley Products Company
Hazel-Atlas Glass Company
Hercules Powder Company
John W. Higman Company
Mauricio Hochschild S. A. M. L.
O. Hommel Company

— I —

Imperial Chemical Industries, Ltd.
Industrial Silica Corporation
Inland Steel Company
Interchemical Corporation
International Business Machines Corp.
International Nickel Company, Inc.

— J —

Jackson Mills Emery Company
Jamison Coal & Coke Company
Johns-Manville Corporation
Jones & Laughlin Steel Corporation

— K —

Keasbey and Mattison Company
Kennecott Copper Corporation
Keystone Emery Mills
Kimble Glass Company
The Kirk & Blum Manufacturing Company
The Edwin M. Knowles China Company
Koppers Company

— L —

Homer Laughlin China Company
Lava Crucible Company of Pittsburgh
E. J. Lavino & Company
Lead Industries Association

— M —

Mackintosh-Hempill Company
Macklin Company
Magma Copper Company
Maryland Self-Insurers' Association
Mayer China Company
J. S. McCormick Company
Metropolitan Life Insurance Company
Mexico Refractories Company
Mid-West Abrasive Company
Mine Safety Appliances Company
Monsanto Chemical Company
Mutual Chemical Company of America

— N —

National Association Fan Manufacturers
National Association of Mutual Casualty Companies
National Crushed Stone Association, Inc.
National Grinding Wheel Company
National Industrial Sand Association
National Lead Company
National Sand & Gravel Association
National Slag Association
National Steel Company
National Supply Company
The Neville Company
New Jersey Zinc Company
North American Refractories Company
Norton Company
Norton Pike Company

— O —

Ontario Mining Association
Oriental Abrasive Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois Glass Company

* Multiple Membership

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— P —

Peninsular Grinding Wheel Company
Penn-Rillion Company
Pennsylvania Glass Sand Corporation
Phelps Dodge Corporation
Pittsburgh Coal Company
Pittsburgh Plate Glass Company
Polaroid Corporation
Portland Cement Association
Posture Research Corporation
Powers X-Ray Products, Inc.
Precision Grinding Wheel Company, Inc.
The Pullman Company
Pyrene Manufacturing Company

— R —

Raybestos-Manhattan, Inc.
Republic Steel Corporation
Rialto Mining Corporation
H. H. Robertson Company
Robertson Manufacturing Company

— S —

Safety First Supply Company
Safety Grinding Wheel & Machine Co.
Sand Products Corporation
Claude B. Schneible Company
Shenango Furnace Company
Simonds Abrasive Company
Simonds Worden White Company
South West Box Company
St. Joseph Lead Company
Standard Lime & Stone Company
The Standard Ultramarine Company
Sterling China Company
Sterling Grinding Wheel Company
Sun Sand Company

— T —

Tata Sons, Ltd.
Taylor, Smith & Taylor Company
Tennessee Copper Company
Texas Gulf Sulphur Company

— T —

Titan Abrasives Company
Toledo Edison Company
Trenton Potteries Company
Tri-State Zinc & Lead Ore Producers Association

— U —

Union Asbestos & Rubber Company
Union Carbide & Carbon Corporation
United States Pottery Association
United States Smelting Refining & Mining Company
United States Steel Corporation of Del.
Universal Sanitary Manufacturing Co.
Utilities Research Commission*

— V —

Valley Mould & Iron Corporation
Van Cleaf Bros.
Vanadium Corporation of America
Vesuvius Crucible Company
Vitreous China Plumbing Fixtures Association
Vitrified Wheel Company

— W —

Waltham Grinding Wheel Company
Washington Mills Abrasive Company
Wedron Silica Company
West Virginia Manufacturers' Association
Western Precipitation Corporation
Westfield Grinding Wheel Company
Westinghouse Air Brake Company
Westinghouse Electric Corporation
Whitehead Brothers Company
Willson Products, Inc.
Winthrop Chemical Company, Inc.
Wisconsin Abrasive Company
Wolf's New Process Abrasive Wheel, Inc.

— Y —

Youngstown Sheet & Tube Company

* Multiple Membership

I-H-F IN 1947

JOHN F. McMAHON

Managing Director, Industrial Hygiene Foundation

What has Industrial Hygiene Foundation done during the past year?

The following are some partial answers to that question:

At the first meeting of the Foundation's Board of Trustees, on December 16, 1935, this organization was launched with 23 member companies and associations. As of today, there are 349 members.

Twenty-two companies and associations have affiliated thus far this year. They are:

American Can Company	Inland Steel Company
Anthracite Institute	National Ass'n Fan Manufacturers
Atlas Powder Company	National Pulverizing Company
Austin Motor Company (England)	National Steel Corporation
Crucible Steel Company	National Supply Company
Federal-Mogul Corporation	New Jersey Pulverizing Company
Firestone Tire & Rubber Co.	Pittsburgh Coke & Chemical Co.
Ford Motor Company	Sharon Steel Corporation
General Ceramics & Steatite Co.	Sun Oil Company
General Electric Company	Sun Sand Company
Godrej and Boyce Mfg. Co.	Sylvania Electric Products Co.

Actually, the number of new members is 54 inasmuch as one of the organizations is the Anthracite Institute, which has taken out a multiple membership covering its 32 member companies. There are now 103 special subscribers—governmental agencies, private institutions, etc.

Field Work

Field work continued to increase in a satisfactory manner and involved studies in approximately 70 different plants. This work will be described by Mr. Hatch, the Foundation's Research Director. In an engineering survey for the pottery industry, directed by Mr. Hemeon, Head Engineer, the Foundation collaborated with the U. S. Potters Association to hold a Pottery Dust Control Clinic here in Mellon Institute on October 13. Sixteen companies sent 31 representatives to this all-day conference.

*Trans. Bull. No 9, 12th Ann. Meet
Nov. 20, 1947*

I-H-F IN 1948

JOHN F. McMAHON

Managing Director, Industrial Hygiene Foundation

Membership

The membership of Industrial Hygiene Foundation now number 353 companies and associations, plus 105 special subscribers.

New members during the year to date are:

Canadian Institute of Stove and Furnace Manufacturers	Homestake Mining Company
Ferro Enamel Corporation	Pangborn Corporation
The Glidden Company	Revere Copper & Brass, Inc.
The B. F. Goodrich Company	Sulite Company
	Standard Oil Company (N.J.)

Meanwhile, applications for membership have just been received from Lever Brothers Company and Southern Mica Company. These will be acted upon by the Foundation's Board of Trustees at their annual meeting today.

Research

Early this year, the Foundation announced the establishment of a new laboratory for industrial toxicology and physiology. This step was taken in response to demands from member companies. The new laboratory marks a highly important advance in the development of this research association of industries—a development that strengthens the Foundation and that promises important benefits not only to the members and their employees but ultimately to all members of America's industrial society.

Two projects, both of one-year duration, have already been initiated and several short-time investigations have been completed.

Plant studies and field researches conducted by the Foundation's staff this year have exceeded, both in scope and importance, anything previously undertaken. The work has included a trip by two men to South America and a number of trips to Canada.

Foundation research will be dealt with fully this morning in a report by Mr. Hatch, our Research Director.

[4]

Trans. Bull. No. 10, 1344 Ann. Meeting

Nov. 12, 1948

1949

FOUNDATION FACTS

JOHN F. McMAHON

Managing Director, Industrial Hygiene Foundation

Membership

The following companies and organizations affiliated or re-affiliated with Industrial Hygiene Foundation during 1949:

Peere & Company	Jeffrey Manufacturing Company
Sucony-Vacuum Oil Company	Rome Cable Company
Texas Company	Metal & Thermit Corporation
Sylvania Electric Products, Inc.	Southern Mica Company
Doehler-Jarvis Corporation	West Virginia Manufacturers Association
Lever Brothers Company	East Indian Railway

Field Studies

The volume of field studies carried on during the year was greater than ever before. Highlights of this work included half a dozen surveys dealing with community air pollution; these were made for Foundation Members in the steel and glass industry, and for the Atomic Energy Commission. Likewise a number of studies were made or are in progress, to determine the health and medical needs of certain member companies. The Foundation welcomes projects of this kind, showing a company what it should have to provide adequately for the health of its employees, the cost, administrative procedures, the medical facilities needed for a given type of firm—these constitute lasting contributions to labor, industry, to human relations, to developing human resources.

Personnel

We announced to the Foundation's membership the appointment of Dr. H. H. Schrenk as Research Director of Industrial Hygiene Foundation. This pleasing development became effective October 1. Dr. Schrenk comes to the Foundation after establishing an international reputation in industrial hygiene at the U.S. Bureau of Mines and more recently with the U.S. Public Health Service. Mr. Theodore F. Hatch is now dividing his time between the Foundation and the new School of Public Health at the University of Pittsburgh—

[5]

*Trans Bull. No. 11, 14th Ann. Meeting,
Nov. 17, 1949*

1950
FOUNDATION FACTS

ANDREW FLETCHER, Eng.D.

President, St. Joseph Lead Company
Chairman, Board of Trustees, Industrial Hygiene Foundation

It has been John McMahon's custom to present to you at this time "Foundation Facts." That responsibility today falls on me. Most of you know what the facts are, but we have probably a few new members and a few new friends, so I will just briefly outline them. Our Foundation started in 1935, when a group of companies banded together on account of the silicosis problem. That organization was known as the Air Hygiene Foundation. We had only some 20 companies, but the early work of the Foundation so impressed other companies that year after year our membership has increased, until today we have approximately 350 of the outstanding companies in the United States who are really interested in improving the working and living conditions of their employees.

National recognition to the Foundation as a competent, impartial research organization was not long in coming, and today, gentlemen, we deserve that recognition. I hope that we will always hold it. The eight companies who joined us this year are representative of our membership list—anyone who would like to have a complete list of our membership can obtain it through our offices here. The eight new companies which joined in 1950 were:

Bradley Mining Company
A. M. Byers Company
Commercial Solvents Corporation
Gulf Oil Corporation
Joy Manufacturing Company
Wyckoff Steel Company
General Ceramics and Steatite Corporation
Pullman-Standard Car Manufacturing Company

I would be amiss if I didn't tell you that your Foundation is in excellent financial condition. We started the year with roughly \$101,000 in cash and short term Government bonds, and we estimate that we will end 1950 with \$115,000.

Major Research Problems

Research results in facts. Constructive policies affecting better working conditions can only be based on facts. And facts are certainly the product of your Foundation. The goal of our Foundation is somewhat visionary, and its labors will only be completed when

[4]

Trans. Bull. No. 15, 15th Ann. Meeting
Nov. 16 1950

1956

FOUNDATION FACTS

C. RICHARD WALMER, M.D.
Managing Director, Industrial Hygiene Foundation

It is indeed a pleasure to have so many of the Foundation's member companies represented here today. The charter members of Industrial Hygiene Foundation visualized it as a unifying agency, aiding in the advancement of occupational health for an industry-wide front, and I think your presence here today justifies their belief that industry needed and wanted such an organization. The joint effort of companies to foster health of workmen has been an effective method of dealing with socio-economic problems relating to industrial health.

Of equal importance in advancing industrial health are the individual efforts of companies to achieve optimum health maintenance in their respective plants. I think the member companies of Industrial Hygiene Foundation are leaders in this respect.

We want at this time to welcome seventeen new members to this year's meeting. They are:

Allied Chemical & Dye Corporation
AMIP Incorporated
Association of American Railroads
Association of American Soap and
Glycerine Producers, Inc.
Boeing Airplane Company
The Cleveland Graphite Bronze Company
Dow Corning Corporation
Equitable Life Assurance Society
of the United States
Farrell-Cheek Steel Company
Jesse S. Morie & Son, Inc.
Minneapolis-Honeywell Regulator Company
Pennsylvania Manufacturers' Association
Casualty Insurance Company
Sauereisen Cements Company
Sperry Gyroscope Company
Standard Oil Company of Indiana
Wald Industries Inc.
Western Maryland Railway

We hope that all of you will consider the Foundation as part of your own technical staff, and we look forward to being of assistance to you.

During the past year the Foundation's staff completed a number of important field and research projects. Environmental surveys were

[4]

Nov - 14-15, 1956
Trans. Bull. No. 30 21st Ann. Meeting

1951

Reprints of addresses continue to be in demand. Requests are still coming in for the talk on "The Human Side of Business," which was made at the 1950 meeting by Dr. Donald K. David, Dean, Graduate School of Business Administration at Harvard. There have been numerous requests for copies of Don G. Mitchell's 1951 keynote address on "Human Dignity."

The following companies have affiliated with the Foundation since January 1:

American Foundrymen's Society	Pennsylvania Railroad Company
Cleveland-Cliffs Iron Company	Prismo Safety Corporation
General Mills, Inc.	Sandia Corporation
General Steel Castings Company	Trion, Inc.
Lakey Foundry and Machine Company	U.S. Pipe and Foundry
	West Michigan Steel Foundry Company
	Wheeling Steel Corporation Company

The Foundation is now serving more than 360 member companies.

The American Iron and Steel Institute training program is one of three established at the Foundation. A new—and important one to us—is that of the Foundation's sponsoring the further education of a medical graduate who is at present studying in the University of Pittsburgh Graduate School of Public Health. The University grants a scholarship, and the Foundation gives financial assistance to the student. This trainee program is the beginning of the Foundation's plan to train future staff members.

In addition to this student in the Graduate School, the Foundation employs part time an undergraduate student of chemical engineering, who is a prospective future staff member.

Listed among the managing director's activities for the past year were numerous talks, one of which took place at the Tenth International Congress on Industrial Medicine held in Lisbon, Portugal, in September. While abroad, the managing director also discussed the role of industrial hygiene in the 79-nation World Health Organization when he conferred at its headquarters in Geneva, Switzerland, with the director, Dr. Brock Chisholm.

Dr. H. H. Schrenk, research director, and W. C. L. Hemeon, engineering director, spoke on "Smoke Abatement" at a recent monthly meeting of the City Council of Weirton, West Virginia. Thomas E. Millsop, President of the City Council, also is president of Weirton Steel Company which, at present, has a trainee in the American Iron and Steel Institute program at the Industrial Hygiene Foundation Laboratory in Mellon Institute.

[83]

Trans. Bull. No. 19, 16th Ann. Meeting,
Nov 15, 1951

Trans. Bull. No. 26. 1953

istic, but because the relationship of industrial health with all the other health fields is becoming increasingly evident. It is directly allied with public health in that a workman must be kept healthy 24 hours a day if he is to do an efficient job for 8 of those hours. Therefore, progressive managements concern themselves with the physical and mental well-being of the worker, his family, his whole community. Physical examinations of employees catch nonoccupational diseases in their incipient stages while there is still time to effect a cure. Physical defects are also uncovered and make it possible to place the man on a job commensurate with his physical condition, thereby prolonging his economically productive years. Health education in the plant is reflected in improved living standards outside its walls. Everybody benefits, including the employer.

Essential Part of Management Program

In certain companies, in-plant health programs have reduced absenteeism by more than 29%, labor turnover by almost the same, and have cut occupational diseases in half. Considered in this light it is obvious that a good industrial health program is an essential part of any management program in industry. I don't need to spell out to you the disrupting and costly effect that absenteeism alone has on production. The savings through reduction in absenteeism can easily offset the cost of a health program.

To achieve the best possible working and living conditions for their employees, many industries have turned to Industrial Hygiene Foundation for guidance. Although we have shown a continuing growth over the last 18 years, I am happy to say that 1953 has been one of our most satisfactory, as evidenced by:

Twelve new members → 1953

Can Manufacturers Institute, Inc.
Continental Can Company
Sugar Beet Products Company
McLean Manufacturing Company
Kennecott Copper Corporation
Dochler-Jarvis Division, National Lead Company
Rem-Cru Titanium, Inc.
Owens-Corning Fiberglass Corporation
McLean Fire Brick Company
Johnson and Johnson
→ Rubberoid Company
St. Regis Paper Company

1954

FOUNDATION FACTS

C. RICHARD WALMER, M.D.

Managing Director, Industrial Hygiene Foundation

The most illuminating measure of Industrial Hygiene Foundation's progress and growth is to be found right here in this auditorium. The increasing attendance at each Annual Meeting is evidence of the enthusiastic support you and the companies you represent are giving to the Foundation. With such interest, it was inevitable that the Foundation would achieve much in its first 20 years toward making better environmental health a reality. With a continuation of this interest, we look forward confidently to a still greater degree of success.

Membership

We are pleased to welcome twelve new member companies to this year's meeting. They are:

Asbestos Corporation Limited
Commonwealth Sanitation Company
G. H. Packwood Manufacturing Company
Georgia Kaolin Company
Mechanical Industries, Inc.
Phillips Petroleum Company
Pilot Chemical Company
Radio Corporation of America
L. L. Stiles and Sons Brick Company
U. S. Asbestos Division of Raybestos-Manhattan, Inc.
Western Electrochemical Company
Wyandotte Chemicals Corporation

This brings the Foundation's membership to 365 companies having a total of more than three million employees. Special subscribers to the monthly *Digest* and other publications now include 128 governmental health agencies and other health and education institutions. Among them are 30 such organizations in 14 foreign countries.

Almost every industrial category is represented on the Foundation's membership roster. The staff of the Foundation is proud to be the medium through which all of these diversified industries can unite their efforts in protecting the health of their workers and their communities.

Helping immeasurably to make this possible through the years has been the interest and support of Mellon Institute. We owe a

[5]

*Trans. Bull. No. 27, 1941, Hrs.
Meeting, Nov. 17-18, 1954*

1955

We like to feel that through the years these meetings, too, have proved valuable to you in affording an opportunity to get together with representatives of fields other than your own so that lines of communication can be strengthened and problems ironed out.

We hope that all of you, and particularly the new members, will take every opportunity to call on the Foundation's staff for assistance. I would like to welcome, at this time, eleven new members to this year's meeting. They are:

Baugh Chemical Company
The Beryllium Corporation
Cora Products Refining Company
Crouse-Hinds Company
Crown Zellerbach Corporation
Detroit Steel Products Company
Industrial Indemnity Company
Mechanical Industries, Inc.
Olin Mathieson Chemical Corporation
Pittsburgh Steel Company
Standard Oil Company of California

This twentieth year of the Foundation's existence saw the completion of a number of important field and research projects and the initiation of new ones. Environmental surveys included studies of dust exposures and other atmospheric contaminants, for which control procedures were recommended and parallel medical controls set up. Several surveys involved determination of the outdoor air pollution as well as that at specific manufacturing operations.

Two complete medical surveys were made which resulted in the modernization of existing medical programs to encompass health maintenance activities.

Several new products have been investigated in our toxicological laboratory to ascertain whether any harmful properties were present. Other studies were carried out to determine the effects on the lungs of dust from various substances used in manufacturing. One of these investigations extends over a three-year period, another over two years.

Extensive air pollution investigations continued throughout the year.

The work carried on by the Foundation this year involved a budget expenditure of a quarter of a million dollars. Figures were cut close, but we expect to end the year with a balanced budget. Our total cash and securities amount to \$175,000.

Elected to the Board of Trustees this year were Mr. John Bugas.

[6]

Trans. Bull. No. 29, 20th Ann. Meeting,
Nov. 16-17-1955

1940

REPORT OF MEMBERSHIP COMMITTEE

C. E. RALSTON,* Chairman

Eleven new members affiliated with Air Hygiene Foundation during the past year. The new members are:

Allegheny Pittsburgh Coal Company
American Mutual Liability Insurance Company
Calco Chemical Company
Colorado Mining Association
Industrial Tape Corporation
Liberty Mutual Insurance Company
Maryland Self-Insurers' Association
Powers X-ray Products, Inc.
Pullman Company
Rustless Iron and Steel Corporation
Toledo Scale Company

Meanwhile, eleven companies failed to renew their membership in January. With the business upturn—increased production creating the need for health protection—a number of these companies are expected to return to the fold.

While the resignations balanced the additions, maintaining the membership at 225 companies, there was an increase of about \$400 a year in income. This is accounted for by the fact that most of the companies that resigned were small firms. Six of them were in the \$50 a year bracket, whereas most of the new members are larger companies in the higher bracket.

As Dr. Meller has announced, there has been a pronounced increase in the Foundation's survey service to its members during the year. This is a significant development. It links the benefits of Foundation membership more firmly with every-day plant operations. An industrial concern that does not know its health hazards, or its lack of them, and have this information in a scientific, specific form, is like a company that does not know its costs. Industrial hygiene surveys are simply inventories. Like inventories they must be made periodically. The advantages of such a procedure are manifold.

In case of claims, you have a record showing what the health conditions actually were at the time of alleged injury. That is, you have this information if you have been making periodic checks over a period of time. The report you receive from the Foundation removes the "guess work" and speculation as to whether there was or wasn't a hazard at the time of the injury. Further, as Mr. Fletcher pointed out here a year ago, a survey from an outside, independent agency carries more weight in Court than a compensation commission than does a report prepared by your own company. In other words, an outside party can talk with greater weight about you than you can talk about yourself.

You all know man's capacity for spreading rumor, how tales grow.

* Safety Director, Pittsburgh Plate Glass Company.

Proc. 54th Ann. Meeting, Nov. 12-13, 1940

1941

REPORT OF THE MEMBERSHIP COMMITTEE

C. E. RALSTON, Chairman

Thirteen companies have affiliated with the Foundation, thus far this year. They are:

Corhart Refractories Company
General Motors Corporation
Hazel-Atlas Glass Company
International Business Machines Company
Merck & Company
Miamisburg Paper Company
Michigan Mutual Liability Company
Neville Company
Pittsburgh Clay Pot Company
Plaskon Company
Pyrene Manufacturing Company
Standard Lime and Stone Company
Toledo Edison Company

Two of the above are old members who dropped out during lean years but renewed their memberships during 1941. Meanwhile, four companies joined during the year.

It will be impossible to make a full report on membership work until the end of the year. A campaign for new members is now in progress and we have reason to be optimistic about its results. Mr. Lewis H. Brown, President of Johns-Manville Corporation, which has held membership since the Foundation was started, has kindly agreed to assist us in the undertaking. The campaign has been necessarily held up by the fact that the Foundation has been in the process of changing its name. That change was advocated by the Membership Committee, as well as many other persons interested in the Foundation, at the meeting here one year ago. After circularizing the membership, and after the due processes of the law, the change from Air Hygiene Foundation to Industrial Hygiene Foundation became official only recently. In fact there are still some final legalities to be disposed of at a business session here today.

Increasing industrial activity tends to increase health hazards—and at a time when the nation sorely needs maximum manpower. Therefore, the work of the Foundation is more important now than ever before. It helps companies keep precautions apace with production, which is the only way we can offset the increases in sick absence and occupational disease which inevitably accompany an increase in the industrial tempo.

In endeavoring to fulfill this important function—keeping precautions a step with production—the Foundation is performing more and more field work for its member companies. During the past year our industrial hygienist, Mr. Mallette, covered approximately 25,000 miles in making plant surveys and "trouble shooting" where new processes were being installed, new materials introduced with questionable health effects. Survey work was performed in seven states.

In August, the staff hygienist flew 2,700 miles in three days covering

Safety Director, Pittsburgh Plate Glass Company

Proc. 6th Ann. Meeting
Nov. 12-13, 1941

1942

New Members

During 1942, 11 more companies and associations affiliated with Industrial Hygiene Foundation in the organization's efforts to promote healthful working conditions, namely:

General Motors Corporation	Koppers Company
Flintkote Company	General Refractories Company
Owens-Corning Fiberglass Corp.	Demare Chair Company
Employers Mutual Liability Insurance Co.	Strathmore Paper Company
Dresser Manufacturing Company	Davison Chemical Company
Pacific Coast Association Pulp and Paper Manufacturers	

There are now 246 company and association members in the Foundation. These organizations, practically all of them directly engaged in war production, employ between 2 and 3 million war workers.

Plant Hygiene Surveys

The introduction of unfamiliar and new chemicals in manufacturing processes, some with little known toxic effects, is demanding even greater attention to plant hygiene measures. Meanwhile the dermatoses continue to be the most common of all occupational diseases.

The Foundation has conducted more plant hygiene surveys than in any previous year. These investigations, supervised by Frank R. Holden, check on the possible existence of health hazards in the workplaces. If hazards are detected, effectual measures are devised for their correction. Besides fostering healthful working conditions, the Foundation's plant surveys are proving to be an increasing factor in advancing harmonious labor relations, helping to eliminate working conditions which are often source of discontent, such as nuisance dusts and fumes.

The Foundation collaborates actively with governmental agencies, both state and federal, which are interested in industrial health. One evidence of this cooperation is the subscription classification started early in the year whereby governmental agencies can secure all Foundation publications at less than cost. Since this arrangement was initiated 12 months ago, 4 federal agencies including Army and Navy, 22 states, and 5 cities have subscribed for Foundation literature. Meanwhile, 3 universities and 4 private specialists have also availed themselves of this material.

Research

The Foundation has continued to support medical and engineering research in industrial health with grants to The Saranac Laboratory, University of Pennsylvania and Harvard School of Public Health. Findings from these studies have been published. Then, too, an important study in toxicology is under way for a member company at Mellon Institute.

Publications

Two medical and two engineering bulletins have been issued to members during the year. These publications, giving the results of research are as follows:

1. Comparison of Stereoscopic Miniature Chest Films, Single Roentgenograms on Paper, and Single Roentgenograms on Large Films.

Proc. 74th Ann. Meeting, Nov. 10-11-1942

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

Abington Sanitary Manufacturing Co.
Abrasive Company
Abrasive Division, U. S. Rubber Company
Abrasive Products Company
Allegheny Ludlum Steel Corporation
Allegheny Pittsburgh Coal Company
Allis-Chalmers Manufacturing Corp.
The Allison Company
Alumina Company of America
American Abrasive Company
American Air Filter Company, Inc.
American Brake Shoe Company
American Cyanamid Company
American Emery Wheel Works
American Iron & Steel Institute
American Mining Congress
American Mutual Liability Insurance Co.
American Optical Company
American Radiator & Standard Sanitary Corporation
American Refractories Institute
American Smelting & Refining Company
American Zinc Institute
American Zinc, Lead & Smelting Company
Anaconda Copper Mining Company
Ass'n of Casualty & Surety Executives
Automobile Manufacturers Association
Ball Brothers Company
Bartlett-Collins Company
Bay State Abrasive Products Company
Bethlehem Steel Company, Inc.
Bird & Sun, Inc.
Bridgeport Safety Emery Wheel Company
Bunker Hill & Sullivan Mining & Concentrating Company
The Carborundum Company
Central Silica Company
Chicago Wheel & Manufacturing Company
Climax Molybdenum Company
Robert F. Coleman, Inc.
The Colorado Mining Association
Consolidated Mining & Smelting Company of Canada, Ltd.
Corhart Refractories Company
Corning Glass Works
Cortland Grinding Wheels Corporation
Davison Chemical Corporation
Deckers Creek Sand Company
Denver Fire Clay Company
A. P. deSanto & Son, Inc.
Detroit-Star Grinding Wheel Company
Diamond Alkali Company
Dunmore Chair Company, Inc.
Dow Chemical Company
B. F. Drakenfeld Company
Dravo Corporation
Earle-Picher Lead Company
Ebasco Services, Inc.
Electro Refractories & Alloys Corporation
Employers Mutual Liability Insurance Co.
Ethyl Corporation
Eureka Flint & Spar Company, Inc.
Expion Company
The Falk Corporation
Firestone Tire & Rubber Company
Firth Sterling Steel Company
The Flintkote Company
Foote Mineral Company
Foundry Supply Manufacturers Ass'n
Fraser-Simpson, Inc.
Fuller Merriam Company
Galvin Manufacturing Company
Gasco Products, Inc.
Gardner Machine Company
General Abrasive Company, Inc.
General Grinding Wheels Corporation
General Motors Corporation
General Refractories Company
Glass Container Association
Glenshaw Glass Company, Inc.
Grinding Wheel Manufacturers Ass'n
The Hall China Company
Hamilton Emery & Corundum Company
Hampton Grinding Wheel Company
Hawley Products Company
Hazel-Atlas Glass Company
Heca Mining Company
Hercules Powder Company
John W. Higman Company
U. Hommel Company
Mauricio Hochschild & A. M. I.
Industrial Silica Corporation
Industrial Tape Corporation
International Business Machines Corp.
International Nickel Company, Inc.
Jack & Heintz, Inc.
Jackson Mills Emery Company
Jaminson Coal & Coke Company
John-Manville Corporation
Jones & Laughlin Steel Corporation
Keystone Emery Mills
Kimble Glass Company
The Kirk & Blum Manufacturing Company
Koppers Company
Homer Laughlin China Company
Lava Crucible Company of Pittsburgh
E. J. Loring & Company
Lead Industries Association
Liberty Mutual Insurance Company
MacKintosh-Hempill Company
Macklin Company
Magma Copper Company
Maryland Self-Insurers Association
Merck & Company, Inc.
Mexican Refractories Company
The Miamiburg Paper Company
Michigan Mutual Liability Company
Mid-West Abrasive Company
Mine Safety Appliances Company
Monsanto Chemical Company
Mutual Chemical Company of America
J. S. McCormick Company
National Crushed Stone Association
National Grinding Wheel Company
National Industrial Sand Association
National Lead Company
National Slag Association
The Neville Company
New Jersey Zinc Company
North American Refractories Company
Norton Company
Norton Pike Company
Ontario Mining Association
Oriental Emery Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois Glass Company
Pacific Coast Association of Pulp & Paper Manufacturers
Peninsular Grinding Wheel Company
Penn-Rillon Company
Pennsylvania Glass Sand Corporation
Phelps Dodge Corporation
Pittsburgh Coal Company
Pittsburgh Plate Glass Company
Plaskan Division, Libbey-Owens
Portland Cement Association
Powers X-Ray Products, Inc.

* Multiple Membership

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

Perfection Grinding Wheel Co.
The Pullman Company
Pullman-Standard Car Manuf.
Pyrene Manufacturing Company
Rayburn-Manhattan, Inc.
Biallo Mining Corporation
M. H. Robertson Company
Safety First Supply Company
Safety Grinding Wheel & Silica
Charles B. Schneible Company
Joseph E. Seagram & Sons, Inc.
Shenando Furnace Company
Simonds Worden White Company
Sulway Process Company
South West Box Company
St. Joseph Lead Company
Standard Abrasive Wheel Co.
Standard Lime & Stone Company
Sterling Grinding Wheel Company
Sturtevant Fire Brick Company
The Sun Rubber Company
Texas Gulf Sulphur Company
Titan Abrasives Company
Tulaco Edison Company
Tulaco Scale Company
Trenton Potteries Company
Tri-Mine Zinc & Lead Ore Processing Association

FEDERAL GOVERNMENT

Air Service Command, Fairfield
Bureau of Medicine & Surgery,
Chief of Ordnance, Chicago, Ill.
Industrial Hygiene Service, Oklahoma City, Okla.
Industrial Safety Division, Naval Arsenal, Alabama
Industrial Hygiene Laboratory, Baltimore, Md.
Medical Supply Officer, Fort M. Navy Yard, Charleston, S. C.
Public Establishment Div., Nashville Valley Authority
U. S. Public Health Service

STATES

Department of Health, California
Department of Health, Connecticut
Department of Health, Georgia
Department of Health, Idaho
Department of Health, Illinois
Department of Health, Indiana
Department of Health, Iowa
Department of Health, Kansas
Department of Health, Louisiana
Department of Health, Maryland
Department of Health, Missouri
Department of Health, Montana
Department of Labor, New York
Department of Health, Ohio
Department of Health, Oklahoma
Department of Labor & Industry, Pennsylvania
Department of Health, Tennessee
Department of Health, Texas
Department of Health, Utah
Department of Health, Vermont
Department of Health, Virginia
Department of Health, West Virginia
Department of Health, Wisconsin
Industrial Commission of Ohio

INDUSTRIAL HYGIENE FOUNDATION

87
 12. 1935 Ass'n
 13. 1936
 14. 1937
 15. 1938
 16. 1939
 17. 1940
 18. 1941
 19. 1942
 20. 1943
 21. 1944
 22. 1945
 23. 1946
 24. 1947
 25. 1948
 26. 1949
 27. 1950
 28. 1951
 29. 1952
 30. 1953
 31. 1954
 32. 1955
 33. 1956
 34. 1957
 35. 1958
 36. 1959
 37. 1960
 38. 1961
 39. 1962
 40. 1963
 41. 1964
 42. 1965
 43. 1966
 44. 1967
 45. 1968
 46. 1969
 47. 1970
 48. 1971
 49. 1972
 50. 1973
 51. 1974
 52. 1975
 53. 1976
 54. 1977
 55. 1978
 56. 1979
 57. 1980
 58. 1981
 59. 1982
 60. 1983
 61. 1984
 62. 1985
 63. 1986
 64. 1987
 65. 1988
 66. 1989
 67. 1990
 68. 1991
 69. 1992
 70. 1993
 71. 1994
 72. 1995
 73. 1996
 74. 1997
 75. 1998
 76. 1999
 77. 2000
 78. 2001
 79. 2002
 80. 2003
 81. 2004
 82. 2005
 83. 2006
 84. 2007
 85. 2008
 86. 2009
 87. 2010
 88. 2011
 89. 2012
 90. 2013
 91. 2014
 92. 2015
 93. 2016
 94. 2017
 95. 2018
 96. 2019
 97. 2020
 98. 2021
 99. 2022
 100. 2023

The Pullman Company
 Standard Car Manufacturing Co.
 Standard Manufacturing Company
 Standard-Machinist, Inc.
 Standard Mining Corporation
 H. H. Robertson Company
 First Supply Company
 Grinding Wheel & Machine Co.
 H. Schneible Company
 E. Seagram & Sons, Inc.
 Standard Furnace Company
 Standard Wooden White Company
 Standard Process Company
 Standard West Box Company
 Standard Lead Company
 Standard Abrasive Wheel Company
 Standard Lime & Stone Company
 Standard Grinding Wheel Company
 Standard Fire Brick Company
 The Sun Rubber Company
 Texas Gulf Sulphur Company
 Texas Abrasives Company
 Toledo Edison Company
 Toledo Scale Company
 Turner Pottery Company
 United Zinc & Lead Ore Producers Association

Union Carbide & Carbon Corporation
 United Engineering & Foundry Company
 United States Pottery Association
 United States Smelting Refining & Mining Company
 United States Steel Corporation of Del.
 Universal Sanitary Manufacturing Co.
 Utah Copper Company
 Utilites Research Commission
 Valley Mould & Iron Corporation
 Vanadium Corporation of America
 Vesuvius Crucible Company
 Vitrid Wheel Company
 Waltham Grinding Wheel Company
 Washington Mills Abrasive Company
 Wedron Silica Company
 The S. K. Wellman Company
 West Company
 Western Precipitation Corporation
 Westfield Grinding Wheel Company
 Westinghouse Air Brake Company
 Westinghouse Electric & Mfg. Company
 Whitehead Brothers Company
 Willson Products, Inc.
 Wisconsin Abrasive Company
 Wolf's New Process Abrasive Wheel, Inc.
 Youngtown Sheet & Tube Company

SUBSCRIBERS

FEDERAL GOVERNMENT

1. Service Command, Fairfield, Ohio.
 2. Bureau of Medicine & Surgery, Navy Dept.
 3. Chief of Ordnance, Chicago, Ill.
 4. National Hygiene Service, Oklahoma City, Okla.
 5. Industrial Safety Division, Huntsville Arsenal, Alabama
 6. Industrial Hygiene Laboratory, Baltimore, Md.
 7. Federal Supply Officer, Fort Mason, Cal.
 8. Yard, Charleston, S. C.
 9. Naval Establishments Div. Navy Dept.
 10. Tennessee Valley Authority
 11. Public Health Service

CITIES

Department of Health, Baltimore, Md.
 Department of Health, Detroit, Mich.
 Department of Health, St. Louis, Mo.

OTHERS

Dr. Elston L. Bellman
 Dr. Charles Kemm Good
 Dr. J. W. G. Hannon
 Dr. E. R. Hayhurst
 Dr. N. P. Henderson
 Mr. J. H. Holden
 Dr. Hedwig S. Kuhn
 Dr. Geo. E. Morris
 Dr. E. D. McDonell
 Dr. C. O. Sandington
 Johns Hopkins University
 University of Colorado
 Medical Administration Service

STATES

Department of Health, California
 Department of Health, Connecticut
 Department of Health, Georgia
 Department of Health, Idaho
 Department of Health, Illinois
 Department of Health, Indiana
 Department of Health, Iowa
 Department of Health, Kansas
 Department of Health, Louisiana
 Department of Health, Maryland
 Department of Health, Missouri
 Department of Health, Montana
 Department of Labor, New York
 Department of Health, Ohio
 Department of Health, Oklahoma
 Department of Labor & Industry, Pennsylvania
 Department of Health, Tennessee
 Department of Health, Texas
 Department of Health, Utah
 Department of Health, Vermont
 Department of Health, Virginia
 Department of Health, West Virginia
 Department of Health, Wisconsin
 General Commission of Ohio

FOREIGN

Department of Pensions & Health, Ottawa, Canada
 Department of Health & Public Welfare, Winnipeg, Canada
 British Ministry of Supply Mission
 International Labor Office, Montreal
 Medical Research Council, London
 Ministère Santé & B. E. Social Hyg. Quebec, Canada
 Netherlands Government Commission for Scientific Documentation

* Multiple Membership

— A —
 Abington Products, Inc.
 Abrasive Company
 Abrasive Division, U. S. Rubber Company
 Abrasive Grain Association
 Abrasive Products Company
 Allegheny Lanthum Steel Corporation
 Allegheny Pittsburgh Coal Company
 Allied-Halmers Manufacturing Corp.
 The Allison Company
 Aluminum Company of America
 American Abrasive Company
 American Air Filter Company, Inc.
 American Brake Shoe Company
 American Cyanamid Company
 American Emery Wheel Works
 American Iron & Steel Institute
 American Mining Congress
 American Optical Company
 American Radiator & Standard
 Sanitary Corporation
 American Refractories Institute
 American Smelting & Refining Company
 American Zinc Institute
 American Zinc, Lead & Smelting Company
 Anaconda Copper Mining Company
 Arrow Mutual Life Insurance Co.
 Association of Casualty & Surety Executives
 Automobile Manufacturers Association

— B —
 Ball Brothers Company
 Bartlett Collins Company
 Bay State Abrasive Products Company
 Bethlehem Steel Company, Inc.
 Bird & Son, Inc.
 Bridgeport Safety Emery Wheel Company
 Buckel Hill & Sullivan Mining & Concentrating Company

— C —
 Canadian General Rubber Company, Ltd.
 The Carborundum Company
 Central Silica Company
 Chicago Wheel & Manufacturing Company
 China & Molybdenum Company
 Robert F. Colman, Inc.
 The Colorado Mining Association
 Consolidated Mining & Smelting Company
 of Canada, Ltd.
 Copper-Rosewater Corporation
 Corhart Refractories Company
 Corning Glass Works
 Portland Grinding Wheels Corporation

— D —
 Davison Chemical Corporation
 Deckers Creek Sand Company
 Denver Fire Clay Company
 A. P. DeSanto & Son, Inc.
 Detroit-Star Grinding Wheel Company
 Dinkel Corporation

— E —
 Diamond Alkali Company
 Frank Alford Company, Inc.
 Emerson Chair Company, Inc.
 Erie Chemical Company
 H. F. Frankford Company
 Fray Corporation

— F —
 Fawcett-Peterson Lead Company
 Fluoro Services, Inc.
 Electro Refractories & Alloy Co.
 Elgin Company
 Ethel Corporation
 Euclid Flint & Spar Company, Inc.
 Exolon Company

— G —
 The Falk Corporation
 Firestone Tire & Rubber Company
 Fifth Star Steel Company
 The Flintkote Company
 Fiske Mineral Company
 Foundry Supply Manufacturers
 Fraxier-Simpson, Inc.
 Fuller Mergheim Company

— H —
 Galvin Manufacturing Corporation
 Garen Products, Inc.
 Gardner Machine Company
 General Abrasive Company, Inc.
 General Amine & Film Corporation
 General Grinding Wheels Corporation
 General Motors Corporation
 General Refractories Company
 Glenhew Glass Company, Inc.
 A. T. Green Fire Brick Company
 Grinding Wheel Manufacturers Association

— I —
 The Hall China Company
 Hamilton Emery & Columbian
 Hamden Grinding Wheel Co.
 Hawley Products Company
 Hazel Atlas Glass Company
 Hecla Mining Company
 Hercules Powder Company
 John W. Heiman Company
 Heinrich Hochschild S. A. M.
 H. Hommel Company

— J —
 Industrial Silica Corporation
 Industrial Tape Corporation
 International Business Machines
 International Nickel Company, Inc.

— K —
 Jackson Mills Emery Company
 Jamison Coal & Coke Company
 Johns-Manville Corporation
 Jones & Laughlin Steel Company

— L —
 Lanthanum Products, Inc.
 Lanthanum Emery Mills
 Lanthanum Glass Company
 Lee & Blum Manufacturing
 Lewis Company

— M —
 Macmillan Chemical Company
 Macmillan Chemical Company of
 Macmillan Chemical Company
 Macmillan Chemical Company

— N —
 National Association of Manufacturers
 National Crushed Stone Association
 National Grinding Wheel Company
 National Industrial Sand Association
 National Land Company
 National Sand & Gravel Association
 National Slag Association
 National Zinc Company
 National Refractories Company
 National Refractories Company

— O —
 Olin Corporation

— P —
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association
 Portland Cement Association

— Q —
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company
 Quincy Portland Cement Company

— R —
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company
 Rawlins Portland Cement Company

• Multiple Membership

10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525
 526
 527
 528
 529
 530
 531
 532

[illegible]

*Transactions, Bull # 8,
11th Ann. Meeting, Nov. 7, 1946.*

1946

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— A —

Abingdon Potteries, Inc.
Abrasive Division, U. S. Rubber Company
Abrasive Grain Association
Abrasive Products Company
Allegheny Ludlum Steel Corporation
Allegheny Pittsburgh Coal Company
Allis-Chalmers Manufacturing Company
Aluminum Company of America
Amalgamated Anthracite Collieries, Ltd.
American Abrasive Company
American Air Filter Company, Inc.
American Brake Shoe Company
American Can Company
American Cyanamid Company
American Emery Wheel Works
American Foundry Equipment Company
American Iron & Steel Institute
American Mining Congress
American Optical Company
American Radiator & Standard
Sanitary Corporation
American Refractories Institute
American Smelting & Refining Company
American Zinc Institute
American Zinc, Lead & Smelting Company
Anaconda Copper Mining Company
Anthracite Institute
Arrow Mutual Liability Insurance Company
Assoc. of Casualty & Surety Executives
Austin Motor Co., Ltd.
Automobile Manufacturers Association

— B —

Ball Brothers Company
Bartlett-Collins Company
Bay State Abrasive Products Company
Bethlehem Steel Company, Inc.
Bird & Son, Inc.
Bituminous Casualty Corporation
Bridgeport Safety Emery Wheel Company
Brush Beryllium Company
Bunker Hill & Sullivan Mining &
Concentrating Company

— C —

Canadian General Rubber Company, Ltd.
The Carborundum Company
Caterpillar Tractor Company
Central Silica Company
Chicago Wheel & Manufacturing Company
Robert F. Coleman, Inc.
The Colorado Mining Association
Consolidated Mining & Smelting Company
of Canada, Ltd.
Cooper-Bessemer Corporation
Corhart Refractories Company
Corning Glass Works
Cortland Grinding Wheels Corporation

— D —

Davison Chemical Corporation
Deckers Creek Sand Company
A. P. DeSanno & Son, Inc.
Detroit-Star Grinding Wheel Company
Diakel Corporation
Diamond Alkali Company
Dow Chemical Company
B. F. Drakenfeld Company
Dravo Corporation

— E —

Eagle-Picher Company
Eastern Gas and Fuel Associates
Ebasco Services, Inc.
Electro Refractories & Alloys Corporation
Eljer Company
Ethyl Corporation
Eureka Flint & Spar Company, Inc.
Exolon Company

— F —

The Falk Corporation
Firth Sterling Steel Company
H. E. Fletcher Company
Foote Mineral Company
Ford Motor Company
Foundry Supply Manufacturers Assoc.
Frazier-Simplex, Inc.
Fuller Merriam Company
The Funkhouser Company

* Multiple Membership

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— G —

Garco Products, Inc.
Gardner Machine Company
General Abrasive Company, Inc.
General Aniline & Film Corporation
General Grinding Wheels Corporation
General Motors Corporation
General Refractories Company
Glenshaw Glass Company, Inc.
A. P. Green Fire Brick Company
Grinding Wheel Manufacturers Assoc.

— H —

The Hall China Company
Hamilton Emery & Corundum Company
Hampden Grinding Wheel Company
Hawley Products Company
Hazel-Atlas Glass Company
Hercules Powder Company
John W. Higman Company
Mauricio Hochschild S. A. M. L.
O. Hommel Company

— I —

Imperial Chemical Industries, Ltd.
Industrial Silica Corporation
Inland Steel Company
Interchemical Corporation
International Business Machines Corp.
International Nickel Company, Inc.

— J —

Jackson Mills Emery Company
Jamison Coal & Coke Company
Johns-Manville Corporation
Jones & Laughlin Steel Corporation

— K —

Keasbey and Mattison Company
Kennecott Copper Corporation
Keystone Emery Mills
Kimble Glass Company
The Kirk & Blum Manufacturing Company
The Edwin M. Knowles China Company
Koppers Company

• Multiple Membership

— L —

Homer Laughlin China Company
Lava Crucible Company of Pittsburgh
E. J. Lavino & Company
Lead Industries Association

— M —

Macintosh-Hempill Company
Macklin Company
Magma Copper Company
Maryland Self-Insurers' Association
Mayer China Company
J. S. McCormick Company
Metropolitan Life Insurance Company
Mexico Refractories Company
Mid-West Abrasive Company
Mine Safety Appliances Company
Monsanto Chemical Company
Mutual Chemical Company of America

— N —

National Association Fan Manufacturers
National Association of Mutual Casualty Companies
National Crushed Stone Association, Inc.
National Grinding Wheel Company
National Industrial Sand Association
National Lead Company
National Sand & Gravel Association
National Slag Association
National Steel Company
National Supply Company
The Neville Company
New Jersey Zinc Company
North American Refractories Company
Norton Company
Norton Pike Company

— O —

Ontario Mining Association
Oriental Abrasive Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois Glass Company

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

— P —

Peninsular Grinding Wheel Company
 Penn-Rillton Company
 Pennsylvania Glass Sand Corporation
 Phelps Dodge Corporation
 Pittsburgh Coal Company
 Pittsburgh Plate Glass Company
 Polaroid Corporation
 Portland Cement Association
 Posture Research Corporation
 Powers X-Ray Products, Inc.
 Precision Grinding Wheel Company, Inc.
 The Pullman Company
 Pyrene Manufacturing Company

— R —

Raybestos-Manhattan, Inc.
 Republic Steel Corporation
 Rialto Mining Corporation
 H. H. Robertson Company
 Robertson Manufacturing Company

— S —

Safety First Supply Company
 Safety Grinding Wheel & Machine Co.
 Sand Products Corporation
 Claude B. Schneible Company
 Shenango Furnace Company
 Simonds Abrasive Company
 Simonds Worden White Company
 South West Box Company
 St. Joseph Lead Company
 Standard Lime & Stone Company
 The Standard Ultramarine Company
 Sterling China Company
 Sterling Grinding Wheel Company
 Sun Sand Company

— T —

Tara Sons, Ltd.
 Taylor, Smith & Taylor Company
 Tennessee Copper Company
 Texas Gulf Sulphur Company

— T —

Titan Abrasives Company
 Toledo Edison Company
 Trenton Potteries Company
 Tri-State Zinc & Lead Ore Producers
 Association

— U —

Union Asbestos & Rubber Company
 Union Carbide & Carbon Corporation
 United States Pottery Association
 United States Smelting Refining & Mining
 Company
 United States Steel Corporation of Del.
 Universal Sanitary Manufacturing Co.
 Utilities Research Commission*

— V —

Valley Mould & Iron Corporation
 Van Cleef Bros.
 Vanadium Corporation of America
 Vesuvius Crucible Company
 Vitreous China Plumbing Fixtures
 Association
 Vitriified Wheel Company

— W —

Waltham Grinding Wheel Company
 Washington Mills Abrasive Company
 Wedron Silica Company
 West Virginia Manufacturers'
 Association
 Western Precipitation Corporation
 Westfield Grinding Wheel Company
 Westinghouse Air Brake Company
 Westinghouse Electric Corporation
 Whitehead Brothers Company
 Willson Products, Inc.
 Winthrop Chemical Company, Inc.
 Wisconsin Abrasive Company
 Wolf's New Process Abrasive Wheel, Inc.

— Y —

Youngstown Sheet & Tube Company

* Multiple Membership

I-H-F IN 1947

JOHN F. McMAHON

Managing Director, Industrial Hygiene Foundation

What has Industrial Hygiene Foundation done during the past year?

The following are some partial answers to that question:

At the first meeting of the Foundation's Board of Trustees, on December 16, 1935, this organization was launched with 23 member companies and associations. As of today, there are 349 members.

Twenty-two companies and associations have affiliated thus far this year. They are:

American Can Company	Inland Steel Company
Anthrax Institute	National Ass'n Fan Manufacturers
Atlas Powder Company	National Pulverizing Company
Austin Motor Company (England)	National Steel Corporation
Crucible Steel Company	National Supply Company
Federal-Mogul Corporation	New Jersey Pulverizing Company
Firestone Tire & Rubber Co.	Pittsburgh Coke & Chemical Co.
Ford Motor Company	Sharon Steel Corporation
General Ceramics & Steatite Co.	Sun Oil Company
General Electric Company	Sun Sand Company
Godrej and Boyce Mfg. Co.	Sylvania Electric Products Co.

Actually, the number of new members is 54 inasmuch as one of the organizations is the Anthracite Institute, which has taken out a multiple membership covering its 32 member companies. There are now 103 special subscribers—governmental agencies, private institutions, etc.

Field Work

Field work continued to increase in a satisfactory manner and included studies in approximately 70 different plants. This work will be described by Mr. Hatch, the Foundation's Research Director. In an engineering survey for the pottery industry, directed by Mr. Hemen, Head Engineer, the Foundation collaborated with the U. S. Potters Association to hold a Pottery Dust Control Clinic here in Mellon Institute on October 13. Sixteen companies sent 31 representatives to this all-day conference.

Trans. Bull. No 9, 12th Ann. Meet
Nov. 20, 1947

I-H-F IN 1948

JOHN F. McMAHON

Managing Director, Industrial Hygiene Foundation

Membership

The membership of Industrial Hygiene Foundation now numbers 353 companies and associations, plus 105 special subscribers.

New members during the year to date are:

Canadian Institute of Stove and Furnace Manufacturers	Homestake Mining Company
Ferro Enamel Corporation	Pangborn Corporation
The Glidden Company	Revere Copper & Brass, Inc.
The B. F. Goodrich Company	Sawlife Company
	Standard Oil Company (N.J.)

Meanwhile, applications for membership have just been received from Lever Brothers Company and Southern Mica Company. These will be acted upon by the Foundation's Board of Trustees at their annual meeting today.

Research

Early this year, the Foundation announced the establishment of a new laboratory for industrial toxicology and physiology. This step was taken in response to demands from member companies. The new laboratory marks a highly important advance in the development of this research association of industries—a development that strengthens the Foundation and that promises important benefits not only to the members and their employees but ultimately to all members of America's industrial society.

Two projects, both of one-year duration, have already been initiated and several short-time investigations have been completed.

Plant studies and field researches conducted by the Foundation's staff this year have exceeded, both in scope and importance, anything previously undertaken. The work has included a trip by two men to South America and a number of trips to Canada.

Foundation research will be dealt with fully this morning in report by Mr. Hatch, our Research Director.

[4]

Trans. Bull. No. 10, 134th Ann. Meeting
Nov. 12, 1948

1949

FOUNDATION FACTS

JOHN F. McMAHON

Managing Director, Industrial Hygiene Foundation

Membership

The following companies and organizations affiliated or re-affiliated with Industrial Hygiene Foundation during 1949:

Peere & Company	Jeffrey Manufacturing Company
Socony-Vacuum Oil Company	Rome Cable Company
Texas Company	Metal & Thermit Corporation
Sylvania Electric Products, Inc.	Southern Mica Company
Doehler-Jarvis Corporation	West Virginia Manufacturers Association
Lever Brothers Company	East Indian Railway

Field Studies

The volume of field studies carried on during the year was greater than ever before. Highlights of this work included half a dozen surveys dealing with community air pollution; these were made for Foundation Members in the steel and glass industry, and for the Atomic Energy Commission. Likewise a number of studies were made or are in progress, to determine the health and medical needs of certain member companies. The Foundation welcomes projects of this kind, showing a company what it should have to provide adequately for the health of its employees, the cost, administrative procedures, the medical facilities needed for a given type of firm—these constitute lasting contributions to labor, industry, to human relations, to developing human resources.

Personnel

We announced to the Foundation's membership the appointment of Dr. H. H. Schrenk as Research Director of Industrial Hygiene Foundation. This pleasing development became effective October 1. Dr. Schrenk comes to the Foundation after establishing an international reputation in industrial hygiene at the U.S. Bureau of Mines and more recently with the U.S. Public Health Service. Mr. Theodore F. Hatch is now dividing his time between the Foundation and the new School of Public Health at the University of Pittsburgh—

[5]

*Trans Bull. No. 11, 14th Ann. Meeting,
Nov. 17, 1949*

1950

FOUNDATION FACTS

ANDREW FLETCHER, Eng.D.

President, St. Joseph Lead Company
Chairman, Board of Trustees, Industrial Hygiene Foundation

It has been John McMahon's custom to present to you at this time "Foundation Facts." That responsibility today falls on me. Most of you know what the facts are, but we have probably a few new members and a few new friends, so I will just briefly outline them. Our Foundation started in 1935, when a group of companies banded together on account of the silicosis problem. That organization was known as the Air Hygiene Foundation. We had only some 20 companies, but the early work of the Foundation so impressed other companies that year after year our membership has increased, until today we have approximately 350 of the outstanding companies in the United States who are really interested in improving the working and living conditions of their employees.

National recognition to the Foundation as a competent, impartial research organization was not long in coming, and today, gentlemen, we deserve that recognition. I hope that we will always hold it. The eight companies who joined us this year are representative of our membership list—anyone who would like to have a complete list of our membership can obtain it through our offices here. The eight new companies which joined in 1950 were:

Bradley Mining Company
A. M. Byers Company
Commercial Solvents Corporation
Gulf Oil Corporation
Joy Manufacturing Company
Wyckoff Steel Company
General Ceramics and Steatite Corporation
Pullman-Standard Car Manufacturing Company

I would be amiss if I didn't tell you that your Foundation is in excellent financial condition. We started the year with roughly \$101,000 in cash and short term Government bonds, and we estimate that we will end 1950 with \$115,000.

Major Research Problems

Research results in facts. Constructive policies affecting better working conditions can only be based on facts. And facts are certainly the product of your Foundation. The goal of our Foundation is somewhat visionary, and its labors will only be completed when

[4]

Trans. Bull. No. 15, 15th Ann. Meeting
Nov. 16 1950

1951

Reprints of addresses continue to be in demand. Requests are still coming in for the talk on "The Human Side of Business," which was made at the 1950 meeting by Dr. Donald K. David, Dean, Graduate School of Business Administration at Harvard. There have been numerous requests for copies of Don G. Mitchell's 1951 keynote address on "Human Dignity."

The following companies have affiliated with the Foundation since January 1:

American Foundrymen's Society	Pennsylvania Railroad Company
Cleveland-Cliffs Iron Company	Prismo Safety Corporation
General Mills, Inc.	Sandia Corporation
General Steel Castings Company	Trion, Inc.
Lake Foundry and Machine Company	U.S. Pipe and Foundry
	West Michigan Steel Foundry Company
	Wheeling Steel Corporation Company

The Foundation is now serving more than 360 member companies.

The American Iron and Steel Institute training program is one of three established at the Foundation. A new—and important one to us—is that of the Foundation's sponsoring the further education of a medical graduate who is at present studying in the University of Pittsburgh Graduate School of Public Health. The University grants a scholarship, and the Foundation gives financial assistance to the student. This trainee program is the beginning of the Foundation's plan to train future staff members.

In addition to this student in the Graduate School, the Foundation employs part time an undergraduate student of chemical engineering, who is a prospective future staff member.

Listed among the managing director's activities for the past year were numerous talks, one of which took place at the Tenth International Congress on Industrial Medicine held in Lisbon, Portugal, in September. While abroad, the managing director also discussed the role of industrial hygiene in the 79-nation World Health Organization when he conferred at its headquarters in Geneva, Switzerland, with the director, Dr. Brock Chisholm.

Dr. H. H. Schrenk, research director, and W. C. L. Hemeon, engineering director, spoke on "Smoke Abatement" at a recent monthly meeting of the City Council of Weirton, West Virginia. Thomas E. Millon, President of the City Council, also is president of Weirton Steel Company which, at present, has a trainee in the American Iron and Steel Institute program at the Industrial Hygiene Foundation Laboratory in Mellon Institute.

[83]

Trans. Bull. No. 19, 16th Ann. Meeting,
Nov 15, 1951

istic, but because the relationship of industrial health with all the other health fields is becoming increasingly evident. It is directly allied with public health in that a workman must be kept healthy 24 hours a day if he is to do an efficient job for 8 of those hours. Therefore, progressive managements concern themselves with the physical and mental well-being of the worker, his family, his whole community. Physical examinations of employees catch nonoccupational diseases in their incipient stages while there is still time to effect a cure. Physical defects are also uncovered and make it possible to place the man on a job commensurate with his physical condition, thereby prolonging his economically productive years. Health education in the plant is reflected in improved living standards outside its walls. Everybody benefits, including the employer.

Essential Part of Management Program

In certain companies, in-plant health programs have reduced absenteeism by more than 29%, labor turnover by almost the same, and have cut occupational diseases in half. Considered in this light it is obvious that a good industrial health program is an essential part of any management program in industry. I don't need to spell out to you the disrupting and costly effect that absenteeism alone has on production. The savings through reduction in absenteeism can easily offset the cost of a health program.

To achieve the best possible working and living conditions for their employees, many industries have turned to Industrial Hygiene Foundation for guidance. Although we have shown a continuing growth over the last 18 years, I am happy to say that 1953 has been one of our most satisfactory, as evidenced by:

Twelve new members 1953

Can Manufacturers Institute, Inc.
Continental Can Company
Sugar Beet Products Company
McLean Manufacturing Company
Kennecott Copper Corporation
Deshler-Jarvis Division, National Lead Company
Rem-Cro Titanium, Inc.
Owens-Corning Fiberglass Corporation
McLain Fire Brick Company
Johnson and Johnson
→ Raberoid Company
St. Regis Paper Company

1954

FOUNDATION FACTS

C. RICHARD WALMER, M.D.

Managing Director, Industrial Hygiene Foundation

The most illuminating measure of Industrial Hygiene Foundation's progress and growth is to be found right here in this auditorium. The increasing attendance at each Annual Meeting is evidence of the enthusiastic support you and the companies you represent are giving to the Foundation. With such interest, it was inevitable that the Foundation would achieve much in its first 20 years toward making better environmental health a reality. With a continuation of this interest, we look forward confidently to a still greater degree of success.

Membership

We are pleased to welcome twelve new member companies to this year's meeting. They are:

Asbestos Corporation Limited
Commonwealth Sanitation Company
G. H. Packwood Manufacturing Company
Georgia Kaolin Company
Mechanical Industries, Inc.
Phillips Petroleum Company
Pilot Chemical Company
Radio Corporation of America
I. L. Stiles and Sons Brick Company
U. S. Asbestos Division of Raybestos-Manhattan, Inc.
Western Electrochemical Company
Wyandotte Chemicals Corporation

This brings the Foundation's membership to 365 companies having a total of more than three million employees. Special subscribers to the monthly Digest and other publications now include 128 governmental health agencies and other health and education institutions. Among them are 30 such organizations in 14 foreign countries.

Almost every industrial category is represented on the Foundation's membership roster. The staff of the Foundation is proud to be the medium through which all of these diversified industries can unite their efforts in protecting the health of their workers and their consumers.

Helping immeasurably to make this possible through the years has been the interest and support of Mellon Institute. We owe a

[5]

*Trans. Bull. No. 27, 1941, Ann
Meeting, Nov. 17-18, 1954*

1955

We like to feel that through the years these meetings, too, have proved valuable to you in affording an opportunity to get together with representatives of fields other than your own so that lines of communication can be strengthened and problems ironed out.

We hope that all of you, and particularly the new members, will take every opportunity to call on the Foundation's staff for assistance. I would like to welcome, at this time, eleven new members to this year's meeting. They are:

Baugh Chemical Company
The Beryllium Corporation
Corn Products Refining Company
Crouse-Hinds Company
Crown Zellerbach Corporation
Detroit Steel Products Company
Industrial Indemnity Company
Mechanical Industries, Inc.
Olin Mathieson Chemical Corporation
Pittsburgh Steel Company
Standard Oil Company of California

This twentieth year of the Foundation's existence saw the completion of a number of important field and research projects and the initiation of new ones. Environmental surveys included studies of dust exposures and other atmospheric contaminants, for which control procedures were recommended and parallel medical controls set up. Several surveys involved determination of the outdoor air pollution as well as that at specific manufacturing operations.

Two complete medical surveys were made which resulted in the modernization of existing medical programs to encompass health maintenance activities.

Several new products have been investigated in our toxicological laboratory to ascertain whether any harmful properties were present. Other studies were carried out to determine the effects on the lungs of dust from various substances used in manufacturing. One of these investigations extends over a three-year period, another over two years.

Extensive air pollution investigations continued throughout the year.

The work carried on by the Foundation this year involved a budget expenditure of a quarter of a million dollars. Figures were cut close, but we expect to end the year with a balanced budget. Our total cash and securities amount to \$175,000.

Elected to the Board of Trustees this year were Mr. John Bugas.

[6]

Trans. Bull. No. 29, 20th Ann. Meeting,
Nov. 16-17-1955

1956

FOUNDATION FACTS

C. RICHARD WALMER, M.D.
Managing Director, Industrial Hygiene Foundation

It is indeed a pleasure to have so many of the Foundation's member companies represented here today. The charter members of Industrial Hygiene Foundation visualized it as a unifying agent, aiding in the advancement of occupational health on an industry-wide front, and I think your presence here today justifies their belief that industry needed and wanted such an organization. The joint effort of companies to foster health of workmen has been an effective method of dealing with socio-economic problems relating to industrial health.

Of equal importance in advancing industrial health are the individual efforts of companies to achieve optimum health maintenance in their respective plants. I think the member companies of Industrial Hygiene Foundation are leaders in this respect.

We want at this time to welcome seventeen new members to this year's meeting. They are:

Allied Chemical & Dye Corporation
AMP Incorporated
Association of American Railroads
Association of American Soap and Glycerine Producers, Inc.
Boeing Airplane Company
The Cleveland Graphite Bronze Company
Dow Corning Corporation
Equitable Life Assurance Society of the United States
Farrell-Cheek Steel Company
Jesse S. Morie & Son, Inc.
Minneapolis-Honeywell Regulator Company
Pennsylvania Manufacturers' Association Casualty Insurance Company
Sauereisen Cements Company
Sperry Gyroscope Company
Standard Oil Company of Indiana
Wald Industries Inc.
Western Maryland Railway

We hope that all of you will consider the Foundation as part of your own technical staff, and we look forward to being of assistance to you.

During the past year the Foundation's staff completed a number of important field and research projects. Environmental surveys were

[4]

Nov - 14-15, 1956
Trans. Bull. No. 30, 21st Ann. Meeting

Trans. Bull. No. 31, 22nd Ann. Meeting,
Oct 30-31, 1957

Foundation Facts

C. RICHARD WALMER, M.D., Pittsburgh

It is indeed a pleasure to welcome all of you to this 22d Annual Meeting of Industrial Hygiene Foundation, not only because I am always happy to see so many members of the Foundation here, but because I believe this audience represents the formula for hurdling obstacles that present themselves in just about every major human endeavor. And that formula is communication—not just communication within the boundaries of our own specialties, but communication across lines, across barriers of misunderstanding that lack of information and insight can create.

We hope that the program which has been arranged for you will help to bring about a clearer understanding of the interrelationship of management, technical, and medical aspects of health maintenance.

We want at this time to welcome 11 new members to this year's meeting. They are the following:

The American Metal Co., Ltd.
The Atchison, Topeka and Santa Fe Railway System
Brazilian National Steel Company
Dick Corporation
General Foods Corporation
Ingersoll-Humphreys Division of Borg-Warner Corporation
Laclede Steel Company
Minnesota Mining & Manufacturing Co.
Reaction Motors, Inc.
Research-Correll, Inc.
Schenck Steel Division of Armco Steel Corporation

We hope that you will consider the Foundation as part of your own technical staff, and we look forward to being of assistance to you.

During the past year the Foundation's staff completed a number of important field

and research projects. Environmental surveys were made for member companies to evaluate the degree of hazardous exposures to dust, fumes, and other atmospheric contaminants. Control measures were based upon this evaluation of the working environment. Investigations were also made of community air pollution, and stack discharges at industrial plants were measured to determine whether these were a contributing factor.

Two major epidemiological studies were carried on during the year, one to determine the health status of workers in a specific industry and whether there is a relationship between environmental exposures and certain biologic effects, and the other to investigate the biologic effects of certain chemical compounds.

Another major medical study was the survey of the medical program of one member company, a redesigning of it, and the preparation of a manual of procedures.

A number of research investigations in the Foundation's toxicological laboratory were concerned with the development of fundamental information appraising and controlling occupational disease hazards. Among long-range projects of this type is one being conducted for an association of industries to study biological factors in air pollution. Another is a research project to study potential hazards of a new product, and includes pulmonary, gastrointestinal, and eye-irritation studies. Findings serve as a basis for evolving proper control measures to protect the health of workers and consumers.

These are just the highlights of the work carried on this year. There were many other projects of a lesser magnitude but equally

given specific information on their dust problem wrote and thanked us for this assistance and stated "Your advice and references have 'cleared the air' enabling us to face our atmospheric pollution with something more than doubt and suspicion."

A second training course for industrial hygiene engineers and chemists was conducted in cooperation with the Occupational Health Research Training Facility of the U. S. Public Health Service. An intensive two weeks was devoted to work in the laboratory and lectures. The response of those taking the course is evidence of the benefits to be derived from this activity and it is planned to repeat the course in 1962. A two-day seminar on the current aspects of the dust problem was conducted under the sponsorship of the National Industrial Sand Association and the Foundry Facing Manufacturers Association. This provided an opportunity for the members of these associations to obtain up-to-date information on the medical, engineering and legal aspects of problems associated with their operations.

The Foundation provides an opportunity for representatives of industry to come together as working groups to explore and better define what they are doing and to take leadership in planning and developing policies to anticipate and prepare for new problems which we must face in the future. The real strength of the Foundation is in the unified action of its members.

On behalf of the staff, I wish to express our deep appreciation for the helpful and encouraging support and the valuable contributions of the Board of Trustees and its Executive Committee, the Technical Committees, and the executive staff of Mellon Institute.

NEW MEMBERS - 1961

American Viscose Corporation
Armco Steel Corporation
Butler County Mushroom Farm, Inc.
The Cooper-Brassmer Corporation
Davison Chemical Division
W. K. Grace & Company
Ferro-Glo Corporation
Hanley Company
Hughson Chemical Company
Powdered Products Company
Westinghouse Brake & Signal, Ltd.
West Virginia Pulp and Paper Company

(197)

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

A third training course for industrial hygiene engineers and chemists was conducted in cooperation with the Occupational Health Research and Training Facility of the United States Public Health Service. A concentrated two weeks was devoted to work in the laboratory, lectures and homework assignments. The response was again most satisfying and the course will be repeated in 1963.

On behalf of the staff, I wish to express our deep appreciation for the helpful and encouraging support and the valuable contributions of the Board of Trustees and its Executive Committee, the Technical Committees, and the executive staff of Mellon Institute.

NEW MEMBERS - 1962

E. I. du Pont de Nemours & Company

International Research and Development Corporation

Louisiana Ordnance Plant of Remington Rand
Division, Sperry Rand Corporation

Netherlands du Pont (foreign)

Semiconductor Products Division of Motorola, Inc.

Stauffer Chemical Company

Tamms Industries Company

Western Electric Company

Member companies represented by proxies:

Abrasive Grain Association
Allegheny Pittsburgh Coal Company
Aluminum Company of America
American Air Filter Company, Inc.
American Iron and Steel Institute
American Zinc Institute
Anaconda Company
American Can Company
American Metal Climax, Inc.
American Smelting & Refining Company
American Viscose Div., FMC Corporation
American Zinc, Lead & Smelting Company
Armco Steel Corporation
Atlas Chemical Industries
Ball Brothers Company, Inc.
Boeing Company
Brush Beryllium Company
Butler County Mushroom Farm
Central Silica Company
Robert F. Coleman, Inc.
Cooper-Bessemer Corporation
Davison Chemical Div., W. R. Grace & Company
Deckers Creek Sand Company
Deere & Company
Dow Chemical Company
B. F. Drakenfeld & Co., Inc.
E. I. du Pont de Nemours & Company
Ebasco Services Incorporated
Electric Storage Battery Company
Equitable Life Assurance Society of the U. S.
Ethyl Corporation
Ferro Corporation
Foundry Facings Manufacturers Association
General Electric Company
General Motors Corporation
Glenshaw Glass Company
Grinding Wheel Institute
Hall China Company
Hanley Company
Hazleton Laboratories, Inc.
Hercules Powder Company
Inland Steel Company
International Business Machines Corp.
Johns-Manville Corporation
Jones & Laughlin Steel Corporation

Kaiser Refractories
Kennecott Copper Corporation
Lava Crucible-Refractories Company
Louisiana Ordnance Plant, Remington Office Equipment Div.,
Sperry Rand Corporation
Marbon Chemical Div., Borg-Warner Corporation
J. S. McCormick Company
Minneapolis-Honeywell Regulator Company
Minnesota Mining and Manufacturing Company
Jesse S. Morie & Son, Inc.
National Assoc. of Mutual Casualty Companies
National Crushed Stone Association
National Industrial Sand Association
National Slag Association
Owens-Corning Fiberglas Corporation
Owens-Illinois Glass Company
G. H. Packwood Manufacturing Company
Penn Riltton Company
Pennsylvania Manufacturers' Assoc. Casualty Insurance Co.
Phelps Dodge Corporation
Philadelphia Quartz Company
Pipe Fabrication Institute
Pittsburgh Plate Glass Company
Pittsburgh Steel Company
Portland Cement Association
Powdered Products Company
Pullman-Standard
Reaction Motors Div., Thiokol Chemical Corporation
Republic Steel Corporation
Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauereisen Cements Company
Claude B. Schneible Company
Scott Aviation Corporation
Socony Mobil Oil Company, Inc.
Stauffer Chemical Company
Sugar Beet Products Company
Tennessee Copper Company Division of Tennessee Corporation
Union Carbide Corporation
U. S. Steel Corporation
Wedron Silica Company
Westinghouse Electric Corporation
Whitehead Brothers Company

NEW MEMBERS AND MEMBERS RESIGNED
January 1 - September 30, 1963

New Members

Cornalco Aluminium, Ltd.	\$ 75.00	
Freeport Division, Nalco Chemical Co.	75.00	
Marbon Chemical Div., Borg Warner Corp.	175.00	
Pipe Fabrication Institute	75.00	
Stiffler Industrial Lubricants Co.	<u>75.00</u>	\$ 475.00

Members Increasing Dues

Ethyl Corporation (from \$100 to \$350)	<u>250.00</u>
	725.00

Members Resigned

Association of American Railroads	\$ 50.00	
Autometric, Inc.	100.00	
Bethlehem Steel Co.	1,000.00	
Gustin-Bacon Manufacturing Co.	200.00	
Keasbey & Mattison Co.	150.00	
New Jersey Pulverizing Co.	50.00	
Shenango Furnace Co.	150.00	
Standard Ultramarine & Color Co.	150.00	
Universal Rundle Corp.	<u>100.00</u>	- <u>\$1,950.00</u>

Loss to September 30, 1963 - \$1,225.00

Company		Date Joined	Company
1957	Abrasive Grain Association	1961	Davison Chemical Division
1937	Abrasive Products Company		W. R. Grace & Company
1956	Acme Abrasive Company	1937	Deckers Creek Sand Company
64	Acme Quality Paints, Inc.	1937	A. P. de Sanno & Son, Inc.
55	Allegheny Ludlum Steel Corp.	1952	Diamond Alkali Company
1940	Allegheny Pittsburgh Coal Co.	1939	Dow Chemical Company
1956	Allied Chemical Corporation	1937	B. F. Drakenfeld & Co., Inc.
1936	Aluminum Company of America	1937	Dravo Corporation
1937	American Abrasive Company	1962	E. I. duPont de Nemours & Co.
1941	American Can Company, Inc.		
1937	American Emery Wheel Works	1963	Edmar Abrasive Company
1944	American Iron and Steel Institute	1943	Electro Refractories & Abrasives Co.
1937	American Metal Climax, Inc.	1945	Eljer Plumbingware Division
1937	American Mining Congress		The Murray Corp. of America
1944	American Optical Company	1956	Equitable Life Assurance Society of the United States
1964	American Potash & Chemical Corp.		
1936	American Smelting & Refining Co.	1937	Ethyl Corporation
1936	American Zinc Institute, Inc.	1937	Exolon Company
1937	American Zinc, Lead & Smelting Co.		
1936	Anasconda Company		
1961	Armco Steel Corporation	1949	Ferro Corporation
1938	Association of Casualty & Surety Companies	1964	FMC Corporation
		1937	Foots Mineral Company
1968	Atlas Chemical Industries, Inc.	1947	Ford Motor Company
1936	Automobile Manufacturers Assn.	1936	Foundry Facing Manufacturers Assn.
		1963	Freeport Division
64	Ball Brothers Company, Inc.		Nalco Chemical Company
1937	Bartlett-Collins Company	1943	Fuller Merriam Company
1937	Bay State Abrasive Products Co.		
1937	Beryllium Corporation	1943	Gardner Machine Company
1937	Bleached Board Division	1958	Geigy-Werke Schweizerhalle A. G.
	West Virginia Pulp and Paper Co.	1937	General Abrasive Company, Inc.
	Boeing Company	1947	General Electric Company
1937	Brush Beryllium Company	1937	General Grinding Wheel Corp.
1937	George H. Bullard Company, Inc.	1951	General Mills, Inc.
1937	Bunker Hill Company	1942	General Motors Corporation
1937	Butler County Mushroom Farm, Inc.	1954	Georgia Kaolin Company
		1937	Glenshaw Glass Company, Inc.
1937	Can Manufacturers Institute, Inc.	1937	Grinding Wheel Institute
1937	Carborundum Company	1950	Gulf Oil Corporation
1937	Celanese Corp. of America	1964	Gypsum Association
1937	Central Silica Company		
1937	Chicago Wheel & Manufacturing Co.	1937	Hall China Company
1937	Cincinnati Milling Products Division	1937	Hamilton Emery & Corundum Co.
1937	Cincinnati Milling Machine Co.	1937	Hampden Grinding Wheel Company
1937	Robert F. Coleman, Inc.	1961	Hanley Company
1937	Colonial Abrasive Products Co.	1959	Hasleton Laboratories
1937	Comalco Aluminum (Bell Bay) Ltd.	1956	Honeywell Inc.
1937	Commonwealth Sanitation Company	1961	Hughson Chemical Company
1937	Companhia Siderurgica Nacional	1937	Huntington Alloy Products Division
1937	Consolidation Coal Company, Inc.		International Nickel Company
1937	Continental Can Company, Inc.		
1937	Cooper-Bessemer Corporation	1957	Ingersoll-Humphrey Division
1937	Corn Products Company		Borg-Warner Corporation
1937	Cortland Grinding Wheel Corporation	1947	Inland Steel Company
1937	Crescent Petroleum Corporation	1947	International Business Machines

Multiple Membership (126 member companies)

1940	James & Laughlin Steel Corp.	1964	Pittsburgh Activated Coal Company
1953	Jowitt & Rodgers Company	1937	Pittsburgh Plate Glass Company
1960	Kaiser Refractories Division	1955	Pittsburgh Steel Company
	Kaiser Aluminum & Chemical Corp.	1938	Portland Cement Association
1953	Minnesota Copper Corporation	1961	Powdered Products Company
1942	Koppers Company, Inc.	1937	Process Air Division
			American Air Filter Company
1937	Lava Crucible Refractories Co.	1950	Pullman-Standard
1964	Laverack & Haines, Inc.	1957	Reaction Motors Division
1936	Lead Industries Association		Thiokol Chemical Corporation
1958	London Transport Board	1952	Red Hill Grinding Wheel Corp.
1962	Louisiana Ordnance Plant	1949	Republic Steel Corporation
	Remington Rand Division	1957	H. H. Robertson Company
	Sperry Rand Corporation	1956	Robertson Manufacturing Company
1937	Macklin Company	1939	Safety First Supply Company
1950	Manhattan Rubber Division	1937	St. Joseph Lead Company
	Raybestos-Manhattan, Inc.	1950	Sandis Corporation
1940	Maryland Self-Insurers' and	1956	Sauersleben Cements Company
	Employers' Compensation Assn.	1937	Claude B. Schneible Company
1937	J. S. McCormick Company	1946	Scott Aviation Corporation
1964	Merck & Co., Inc.	1937	Simonds Abrasive Company
1937	Mid-West Abrasive Company	1937	Simonds Worden White Company
1936	Miss Safety Appliances Company	1956	Soap and Detergent Association
1957	Minnesota Mining & Manufacturing Co.	1949	Socony Mobil Oil Company, Inc.
1956	James S. Moris & Son, Inc.	1941	Standard Lime and Cement Company
		1964	Standard Oil Company (New Jersey)
1945	National Association of Mutual	1962	Stauffer Chemical Company
	Casualty Companies	1937	Sterling Grinding Wheel Company
1937	National Crushed Stone Assn., Inc.	1963	Stiffel Industrial Lubricants Co.
1947	National Glass Sand Corporation	1953	Sugar Beet Products Company
1937	National Grinding Wheel Co., Inc.		
1937	National Industrial Sand Assn.	1952	Tata Industries Limited
1937	National Lead Company	1946	Taylor, Smith & Taylor Company
1964	National Ready Mixed Concrete Assn.	1946	Tennessee Copper Company
1945	National Sand and Gravel Assn., Inc.		Division of Tennessee Corp.
1938	National Slag Association	1938	Texas Gulf Sulphur Company
1947	National Steel Corporation	1937	Titan Abrasives Company
1962	Nederland duPont de Nemours, N. Y.	1960	Toms River-Cincinnati Chemical
1966	Newport Division		Corporation
	Hayden Newport Chemical Corp.	1936	Union Carbide Corporation
1963	Osborn Manufacturing Company	1936	United States Potters Association
1937	Ottawa Silica Company	1936	United States Steel Corporation
1953	Owens-Corning Fiberglass Corp.		
1936	Owens-Illinois Glass Company	1937	Valley Mould and Iron Corporation
		1960	Van Straaten Chemical Company
1954	Pacific Grinding Wheel Manufacturing	1938	Vesuvius Crucible Company
1954	G. H. Packwood Manufacturing Co.		
1937	Peninsular Grinding Wheel Division	1937	Waltham Grinding Wheel Company
	Wakefield Corporation	1937	Washington Mills Abrasive Company
1937	Pennsylvania Glass Sand Corp.	1937	Wedron Silica Company
1956	Pennsylvania Manufacturers' Assn.	1962	Western Electric Company, Inc.
	Casualty Insurance Company	1937	Westfield Grinding Wheel Company
1964	Perkin-Elmer Corporation	1961	Westinghouse Brake and Signal
1960	Petroleo Brasileiro S. A.		Company, Limited
1936	Phelps Dodge Corporation	1937	Westinghouse Electric Corporation
1951	Philadelphia Quartz Company	1937	Whitehead Brothers Company
		1937	Willson Products Division
			Ray-O-Vac Company
		1937	Youngstown Sheet and Tube Company

* Multiple Membership (27 member companies)

Company	Year	Company
Crucible-Refractories Company	1952	Red Hill Grinding Wheel Corporation
C. K. & Haines, Inc.	1945	Republic Steel Corporation
Crucible Association	1937	H. H. Robertson Company
Crucible Export Board	1956	Robertson Manufacturing Company
Crucible Ordnance Plant		
Crucible Road Division	1939	Safety First Supply Company
Crucible Road Corporation	1937	St. Joseph Lead Company
	1950	Sandia Corporation
Crucible Company	1956	Sauereisen Cements Company
Crucible Rubber Division	1937	Claude B. Schneible Company
Crucible-Metallurgy, Inc.	1946	Scott Aviation Corporation
Crucible Chemists' Association	1937	Simonds Abrasive Company
Crucible Mining Company	1937	Simonds Worden White Company
Crucible Self-Insurers' and	1956	Soap and Detergent Association
Crucible Compensation Assn.	1949	Socony Mobil Oil Company, Inc.
Crucible Company	1941	Standard Lime and Cement Company
Crucible Company, Inc.	1964	Standard Oil Company (New Jersey)
Crucible Abrasive Company	1962	Stauffer Chemical Company
Crucible Laboratories, Inc.	1937	Sterling Grinding Wheel Company
Crucible Appliances Company	1963	Stiffler Industrial Lubricants Company
Crucible Mining & Manufacturing Co.	1965	Sturm, Ruger & Company, Inc.
Crucible & Son, Inc.	1953	Sugar Beet Products Company
Coal Association	1952	Tata Services Limited
Crushed Stone Assn., Inc.	1946	Taylor, Smith & Taylor Company
Class Sand Corporation	1946	Tennessee Copper Company
Grinding Wheel Company, Inc.		Division of Tennessee Corporation
Industrial Sand Assn.	1938	Texas Gulf Sulphur Company
Lead Company	1937	Titan Abrasives Company
Ready Mixed Concrete Assn.	1960	Toms River Chemical Corporation
Ready and Gravel Assn., Inc.		
Ready Association	1936	Union Carbide Corporation
Ready Corporation	1936	United States Potters Association
Ready duPont de Nemours N. V.	1936	United States Steel Corporation
Ready Division		
Ready Chemicals, Inc.	1937	Valley Mould and Iron Corporation
	1960	Van Straaten Chemical Company
Ready Manufacturing Company	1938	Vesuvius Crucible Company
Ready Silica Company		
Ready Fiberglass Corp.	1937	Waltham Grinding Wheel Company
Ready Glass Company	1937	Washington Mills Abrasive Company
	1937	Wedron Silica Company
Ready Grinding Wheel Manufacturing	1962	Western Electric Company, Inc.
Readywood Manufacturing Co.	1937	Westfield Grinding Wheel Company
Ready Grinding Wheel Division	1961	Westinghouse Brake and Signal Co., Ltd.
Ready Corporation	1937	Westinghouse Electric Corporation
Ready Glass Sand Corporation	1937	Willson Products Division
Ready Manufacturers' Assn.		Ray-O-Vac Company
Ready Insurance Company		
Ready Corporation	1937	Youngstown Sheet and Tube Company
Ready S. A.		
Ready Corporation		
Ready Quartz Company		
Ready Activated Carbon Company		
Ready Plate Glass Company		
Ready Steel Company		
Ready Cement Association		
Ready Products Company		
Ready Division		
Ready Filter Company		
Ready		
Ready Division		
Ready Chemical Corporation		
Ready		

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

-A-

Abingdon Potteries, Inc.
Abrasive Grain Association
Abrasive Products Company
Acme Abrasive Company
Aerovent Fan Company, Inc.
Allegheny Ludlum Steel Corporation
Allegheny Pittsburgh Coal Company
Allied Chemical Corporation
Allis-Chalmers Manufacturing Company
Aluminum Company of America
American Abrasive Company
American Air Filter Company, Inc.
American Brake Shoe Company
American Can Company
American Emery Wheel Works
American Iron and Steel Institute
American Metal Climax, Inc.
American Mining Congress
American Optical Company
American Smelting & Refining Company
American Zinc Institute, Inc.
American Zinc, Lead & Smelting Company
Anaconda Company
Asbestos Corporation Limited
Assn. of American Railroads
Assn. of American Soap & Glycerine
Producers, Inc.
Assn. Argentina de Empresarios Mineros
Assn. of Casualty & Surety Companies*
Atchafalaya, Topeka and Santa Fe
Railway System
Automobile Manufacturers Association

-B-

Ball Brothers Company
Bartlett-Collins Company
Baugh and Sons Company
Bay State Abrasive Products Company
Beryllium Corporation
Bethlehem Steel Company, Inc.
Bird & Son, Inc.
Bituminous Casualty Corporation
Boeing Airplane Company
Brush Beryllium Company
George H. Bullard Company
Bunker Hill Company

-C-

Can Manufacturers Institute, Inc.
Carborundum Company
Catalytic Combustion Corporation
Celanese Corporation of America
Central Silica Company
Chicago Wheel & Manufacturing Company
Cincinnati Milling Products
Cleveland Graphite Bronze Company
Robert F. Coleman, Inc.
Colonial Abrasive Products Company
Commonwealth Sanitation Company
Companhia Siderurgica Nacional
Consolidation Coal Company, Inc.
Continental Can Company, Inc.
Copperweld Steel Company
Corn Products Company
Cortland Grinding Wheels Corporation

-D-

Deckers Creek Sand Company
Deere & Company
A. P. de Sanno & Son, Inc.
Diamond Alkali Company
Dow Chemical Company
B. F. Drakenfeld & Company, Inc.
Dravo Corporation

-E-

Eagle-Picher Company
Ebasco Services, Inc.
Electric Storage Battery Company
Electro Refractories & Abrasives Corporation
Eljer Company
Equitable Life Assurance Society of the U.S.
Esso Research and Engineering Company
Ethyl Corporation
Exolon Company

-F-

Falk Corporation
Farrell-Cheek Steel Company
Ferro Corporation
Foote Mineral Company
Ford Motor Company
Fostoria Glass Company
Foundry Facing Manufacturers Association
Fuller Merriam Company

* Multiple Membership (147 member companies)

MEMBERS (continued)

—G—

Gardner Machine Company
Geigy-Werke Schweizerhalle A. G.
General Abrasive Company, Inc.
General Ceramics Corporation
General Electric Company
General Grinding Wheel Corporation
General Mills, Inc.
General Motors Corporation
General Refractories Company
Georgia Kaolin Company
Glenshaw Glass Company, Inc.
W. R. Grace & Company
Grinding Wheel Institute
Gulf Oil Corporation

—H—

Hall China Company
Hamilton Emery & Corundum Company
Hampden Grinding Wheel Company
Hazleton Laboratories
Hercules Powder Company
Homestake Mining Company

—I—

Ingersoll-Humphries
Inland Steel Company
International Business Machines Corp.
International Nickel Company

—J—

Johrs-Manville Corporation

—K—

Keasbey & Mattison Company
Kennecott Copper Corporation
Keystone Abrasive Wheel Company
Kirk & Blum Manufacturing Company
Koppers Company, Inc.

—L—

Homer Laughlin China Company
Lava Crucible-Refractories Company
E. J. Lavino and Company
Lead Industries Association
London Transport Executive

—M—

Macklin Company
Manhattan Rubber
Maryland Self-Insurers' Association
J. S. McCormick Company
Mexico Refractories
Mid-West Abrasive Company
Mine Safety Appliances Company
Minneapolis-Honeywell Regulator Company
Minnesota Mining & Manufacturing Company
Jesse S. Morie & Son, Inc.

—N—

National Assn. of Mutual Casualty Cos.
National Crushed Stone Association, Inc.
National Glass Sand Corporation
National Grinding Wheel Company, Inc.
National Industrial Sand Association
National Lead Company
National Sand & Gravel Association, Inc.
National Slag Association
National Steel Corporation
Neville Chemical Company
New Jersey Pulverizing Company

—O—

Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois Glass Company

—P—

Pacific Grinding Wheel Manufacturing Co.
G. H. Packwood Manufacturing Company
Pangborn Corporation
Peninsular Grinding Wheel
Penn-Rillton Company
Pennsylvania Glass Sand Corporation
Pennsylvania Manufacturers' Association
Casualty Insurance Company
Phelps Dodge Corporation
Philadelphia Quartz Company
Phillips Petroleum Company
Pittsburgh Coke & Chemical Company
Pittsburgh Plate Glass Company
Pittsburgh Steel Company
Portland Cement Association
Pullman Incorporated Foundation

* Multiple Membership (24 member companies)

MEMBERS (continued)

—R—

Reaction Motors
Red Hill Grinding Wheel Corporation
Republic Steel Corporation
Research-Cottrell, Inc.
H. H. Robertson Company
Robertson Manufacturing Company
Rome Cable Corporation

—S—

Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauerisen Cements Company
Claude B. Schneible Company
Scott Aviation Corporation
Sharon Steel Corporation
Sheffield Steel
Shenango Furnace Company
Simonds Abrasive Company
Simonds Worden White Company
Socony Mobil Oil Company, Inc.
Standard Lime and Cement Company
Standard Oil Company of California
Standard Ultramarine and Color Company
Singer Grinding Wheel Company
S. J. Beet Products Company

—T—

Tata Industries Limited
Taylor, Smith & Taylor Company
Tennessee Copper Company
Texas Gulf Sulphur Company
Titan Abrasives Company
Trenton Potteries Company
Trion, Inc.
Tusco Corporation

—U—

Union Carbide Corporation
United States Potters Association
United States Rubber Company
United States Steel Corporation
Universal-Rundle Corporation

—V—

Valley Mould & Iron Corporation
Vesuvius Crucible Company
Vitrified Wheel Company

—W—

Waltham Grinding Wheel Company
Washington Mills Abrasive Company
Wedron Silica Company
Western Maryland Railway Company
Westfield Grinding Wheel Company
Westinghouse Air Brake Company
Westinghouse Electric Corporation
Wheelabrator Corporation
Whitehead Brothers Company
Willson Products
Wyckoff Steel Company

—Y—

Youngstown Sheet and Tube Company

* Additional Information

Kaiser Aluminum & Chemical Corp.
Kaiser Refractories Division

Kennecott Copper Corporation
Keystone Brass Works, Inc.
Koppers Company, Inc.

Laundry & Cleaners Allied Trades Assn.
Leverack & Haines, Inc.
Lead Industries Association
London Transport Board

Macklin Company
Manufacturing Chemists Assn., Inc.
Marcona Mining Company
Maryland Self-Ins. & Empl. Comp. Assn.
J. S. McCormick Company
Merck and Company, Inc.
Metropolitan Life Insurance Company
Mid-West Abrasive Company
Miles Laboratories, Inc.
Mine Safety Appliances Company
Minnesota Mining & Manufacturing Co.
Mobil Oil Corporation
Jesse S. Morie & Son, Inc.

Nalco Chemical Company
Freeport Division
National Coal Association
National Crushed Stone Association, Inc.
National Glass Sand Corporation
National Grinding Wheel Company, Inc.
National Industrial Sand Association
National Insulation Manufacturers Assn.
National Lead Company
National Sand & Gravel Association, Inc.
National Slag Association
Nederland du Pont de Nemours N. V.

Osborn Manufacturing Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois Glass Company

Pacific Grinding Wheel Manufacturing Co.
G. H. Packwood Manufacturing Company
Pennsylvania Glass Sand Corporation
Pennsylvania Mfrs. Assn. Inc. Co.
Perkin-Elmer Corporation
Petrobras Brasileiro S.A.
Philadelphia Quartz Company
Pittsburgh Activated Carbon Company
Pittsburgh Plate Glass Company
Pittsburgh Steel Company
H. K. Porter Company, Inc.
Simonds Warden White Works
Portland Cement Association

Raybestos-Manhattan, Inc.
Manhattan Rubber Division
Red Hill Grinding Wheel Corporation
Republic Steel Corporation
H. H. Robertson Company
Robertson Manufacturing Company

Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauereisen Cements Company
Simonds Abrasive Company
Slacclair-Koppers Company
Soap and Detergent Association
Sperry Rand Corporation
Louisiana Army Ammunition Plant
Standard Oil Company (New Jersey)
Stauffer Chemical Company
Sterling Grinding Wheel Company
Strum, Ruger & Company, Inc.
Sugar Beet Products Company

Tata Services Limited
Tennessee Copper Company
Texas Gulf Sulphur Company
Thiokol Chemical Corporation
Reaction Motors Division
Titan Abrasives Company
Toms River Chemical Corporation

Union Carbide Corporation
United States Pottery Association
United States Steel Corporation

Valley Mould and Iron Corporation
Van Straaten Chemical Company
Vesuvius Crucible Company

Wakefield Corporation
Peninsular Grinding Wheel Division
Waltham Grinding Wheel Company
Washington Mills Abrasive Company
Wedron Silica Company
Western Electric Company, Inc.
Westfield Grinding Wheel Company
Westinghouse Brake and Signal Company, Ltd.
Westinghouse Electric Corporation
West Virginia Pulp and Paper Company
Bleached Board Division

I H F MEMBERS

- Abrasive Grain Association
- Abrasive Products Company
- Acme Abrasive Company
- ... Air Preheater Company
- Alcolac Chemical Corporation
- Allegheny Ludlum Steel Corporation
- Allegheny Pittsburgh Coal Company
- Allied Chemical Corporation
- Aluminum Company of America
- American Abrasive Company
- American Can Company
- American Emery Wheel Works
- American Insurance Association
- American Iron and Steel Institute
- American Metal CILmax, Inc.
- American Mining Congress
- American Mutual Insurance Alliance
- American Optical Company
- American Petroleum Institute
- American Potash & Chemical Corp.
- American Smelting & Refining Co.
- American Welding & Manufacturing Co.
- American Zinc Company
- American Zinc Institute, Inc.
- Anatexida Company
- Arnico Steel Corporation
- Armstrong Paints & Varnish Works, Inc.
- Asbestos Textile Institute
- Atlas Chemical Industries, Inc.
- Automobile Manufacturers Association, Inc.
- Aveo Bay State Abrasives Division

- Frank Bancroft Company, Inc.
- Beryllium Corporation
- Blanchard Machine Company
- Bueing Company
- Brush Beryllium Company
- Buckeye Abrasive, Inc.
- George H. Bullard Company
- Bunker Hill Company
- Butler County Mushroom Farm, Inc.

- Calgon Corporation
- Packwood Manufacturing Co.
- Pittsburgh Activated Carbon Co.
- Can Manufacturers Institute, Inc.
- Carborundum Company
- Celanese Corporation
- Central Silica Company
- Chayer Dental Instrument Corp.
- Chicago Wheel & Manufacturing Co.
- Chrysler Corporation
- Cincinnati Milling Machine Co.
- Cincinnati Milling Products Division
- Robert F. Coleman, Inc.
- Colonial Abrasive Products Co.
- Cumaco Aluminum (Bell Bay) Limited
- Companhia Siderurgica Nacional

- Consolidation Coal Company, Inc.
- Continental Can Company, Inc.
- Corn Products Company
- Cortland Grinding Wheels Corporation
- Creole Petroleum Corporation

- A. P. deSanno & Son, Inc.
- Diamond Alkali Company
- Dow Chemical Company
- Dravo Corporation
- E. I. du Pont de Nemours & Company

- Eastman Kodak Company
- Edmar Abrasive Company
- Electric Storage Battery Company
- Willson Products Division
- Electro Refractories & Abrasives Corp.
- Equitable Life Assurance Society of the U. S.
- Ethyl Corporation
- Exolon Company

- Ferro Corporation
- FMC Corporation
- FMR Corporation
- Foots Mineral Company
- Ford Motor Company
- Foundry Facings Manufacturers Group

- Gardner Machine Company
- Geigy-Werke Schweizerhalle A. G.
- General Abrasive Company, Inc.
- General Electric Company
- General Grinding Wheel Corporation
- General Mills, Inc.
- General Motors Corporation
- Georgia Kaolin Company
- Glenshaw Glass Company, Inc.
- Goodyear Tire & Rubber Company
- Grinding Wheel Institute
- Gulf Oil Corporation
- Gypsum Association

- Hall China Company
- Hamilton Emery & Corundum Company
- Hampden Grinding Wheel Company
- Hanford Occupational Health Foundation
- Hanson Company
- Hazleton Laboratories
- Hercules, Inc.
- Drakenfeld Division
- Hughson Chemical Company

- Inland Steel Company
- International Business Machines Corp.
- International Nickel Company, Inc.
- Huntington Alloy Products Division
- ITT Abrasive Products Company

• Multiple Membership

Johns-Manville Corporation
Jones & Laughlin Steel Corporation
Jowitt & Rodgers Company

Kasco Abrasives, Inc.
Kennebec Copper Corporation
Keystone Brass Works, Inc.
Koppers Company, Inc.

Laundry & Cleaners Allied Trades Assn.
Leverack & Haines, Inc.
Lead Industries Association
London Transport Board

Macklin Abrasives Company
Manufacturing Chemists Assn., Inc.
Marcona Mining Company
Maryland Self-Ins. & Empl. Comp. Assn.
J. S. McCormick Company
Merck and Company, Inc.
Metropolitan Life Insurance Company
Mid-West Abrasive Company
Miles Laboratories, Inc.
Mine Safety Appliances Company
Mobil Oil Corporation
Jesse S. Morie & Son, Inc.

Nalco Chemical Company
Freight Division
National Coal Association
National Crushed Stone Association, Inc.
National Glass Sand Corporation
National Grinding Wheel Company, Inc.
National Industrial Sand Association
National Insulation Manufacturers Assn.
National Lead Company
National Sand & Gravel Association, Inc.
National Slag Association
Nederland du Pont de Nemours N.Y.
Norton Company

Osborn Manufacturing Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois, Inc.

Pacific Grinding Wheel Manufacturing Co.
Pennsylvania Glass Sand Corporation
Pennsylvania Mfrs. Assn. Inc. Co.
Parkin-Elmer Corporation
Petrobras/RPBC
Portland Cement Association
PPG Industries
Precision Grinding Wheel Co., Inc.

Raybestos-Manhattan, Inc.
Manhattan Rubber Division
Red Hill Grinding Wheel Corporation
Republic Steel Corporation
H. H. Robertson Company

Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauers Eisen Cements Company
Sinclair-Koppers Company
Soap and Detergent Association
Sperry Rand Corporation
Louisiana Army Ammunition Plant
Standard Oil Company (Indiana)
Standard Oil Company (New Jersey)
Stauffer Chemical Company
Sturm, Ruger & Company, Inc.
Sugar Beet Products Company

Tata Services Limited
Tennessee Copper Company
Texas Gulf Sulphur Company
Thiokol Chemical Corporation
Reaction Motors Division
Toms River Chemical Corporation

Union Carbide Corporation
United States Pottery Association
United States Steel Corporation

Valley Mould and Iron Corporation
Van Straaten Chemical Company
Vesuvius Crucible Company

Wallace-Murray Corporation
Simonds Abrasive Division
Waltham Grinding Wheel Company
Washington Mills Abrasive Company
Wedron Silica Company
Western Electric Company, Inc.
Westfield Grinding Wheel Company
Westinghouse Air Brake Division
Westinghouse Air Brake Company
Westinghouse Brake and Signal Company, Ltd.
Westinghouse Electric Corporation
West Virginia Pulp and Paper Company
Bleached Board Division

MEMBERS — 1968

Date Joined	Company	Date Joined	Company
1937	Abrasive Grain Association	1953	Continental Can Company, Inc.
1937	Abrasive Products Company	1968	Continental Insurance Companies
1956	Acme Abrasive Company	1955	Corn Products Company
1965	The Air Preheater Company	1937	Cortland Grinding Wheels Corp.
1936	Allegheny Ludlum Steel Corp.	1962	Croole Petroleum Corporation
1940	Allegheny Pittsburgh Coal Co.		
1936	Aluminum Company of America	1937	A. P. deSanno & Son, Inc.
1969	*Aluminum Co. of Canada (Alcan)	1952	Diamond Shamrock Corporation
1937	American Abrasive Company	1968	DL Skin Care Products, Inc.
1947	American Can Company, Inc.	1939	Dow Chemical Company
1937	American Emery Wheel Works	1937	Dravo Corporation
1938	*American Insurance Association	1962	E. L. du Pont de Nemours & Co.
1944	American Iron and Steel Institute		
1957	American Metal Climax, Inc.	1966	Eastman Kodak Company
1937	American Mining Congress	1963	Edmar Abrasive Company
1945	*American Mutual Insurance Alliance	1943	Electro Refractories & Abrasives Corp.
1944	American Optical Company	1956	Equitable Life Assurance Society of the United States
1967	American Petroleum Institute		
1964	American Polish & Chemical Corp.	1937	Ethyl Corporation
1936	American Smelting & Refining Co.	1937	Exolon Company
1967	American Welding & Manufacturing Co.		
1937	American Zinc Company	1949	Ferro Corporation
1936	Anaconda Company	1964	FMC Corporation
1961	Armco Steel Corporation	1967	FMR Corporation
1965	Armstrong Paint & Varnish Works, Inc.	1937	Foots Mineral Company
1966	Asbestos Textile Institute	1947	Ford Motor Company
1947	Atlas Chemical Industries, Inc.	1936	Foundry Facings Manufacturers Assn.
1968	Auto-Flo Company	1969	**Frantz, McConnell & Seymour
1936	Automobile Manufacturers Assn.		
1937	Avco Bay State Abrasives Division	1943	Gardner Machine Company
		1958	Geigy-Werke Schweizerhalle A. G.
1965	Frank Bancroft Company, Inc.	1937	General Abrasive Company, Inc.
1953	Beryllium Corporation	1947	General Electric Company
1968	Bituminous Coal Operators' Assn.	1937	General Grinding Wheel Corp.
1967	Blanchard Machine Company	1951	General Mills, Inc.
1956	The Boeing Company	1942	General Motors Corporation
1944	Brush Beryllium Company	1954	Georgia Kaolin Company
1967	Buckeye Abrasive, Inc.	1968	Glass Container Manufacturers Institute, Inc.
1952	George H. Bullard Company, Inc.		
1936	Bunker Hill Company	1937	Glenshaw Glass Company, Inc.
1961	Butler County Mushroom Farm, Inc.	1967	Goodyear Tire & Rubber Company
		1937	Grinding Wheel Institute
1953	Can Manufacturers Institute, Inc.	1950	Gulf Oil Corporation
1937	Carborundum Company		
1952	Celanese Corporation	1936	Hall China Company
1937	Central Silica Company	1937	Hamilton Emery & Corundum Company
1968	Certain-teed Products Corporation Gustin-Bacon Division	1937	Hampden Grinding Wheel Company
1967	Chayes Dental Instrument Company	1966	Hanford Occupational Health Foundation
1937	Chicago Wheel & Manufacturing Co.	1967	Hanson Company
1966	Chrysler Corporation	1959	Hazleton Laboratories
1954	Cincinnati Milling Machine Co. Cincinnati Milling Products Div.	1937	Hercules, Inc. Drakenfield Division
1944	Robert F. Coleman, Inc.		
1951	Colonial Abrasive Products Co.	1947	Inland Steel Company
1963	Cornalco Aluminum (Bell Bay) Ltd.	1947	International Business Machines Corp.
1958	Companhia Siderurgica Nacional	1966	International Nickel Company, Inc.
1936	Consolidation Coal Company, Inc.		Huntington Alloy Products Division

*Multiple membership

**January 1, 1969 member

Date Joined	Company	Date Joined	Company
1967	ITT Abrasive Products Co.	1967	Precision Grinding Wheel Company, Inc.
1936	Johns-Manville Corporation	1968	Raybestos-Manhattan, Inc.
1936	Jones & Laughlin Steel Corp.		Manhattan Rubber Division
1963	Jowitt & Rodgers Company	1952	Red Hill Grinding Wheel Corporation
		1937	H. H. Robertson Company
1967	Kasco Abrasives, Inc.		
1953	Kennecott Copper Corporation	1937	St. Joseph Lead Company
1965	Keystone Brass Works, Inc.	1956	Sauers Eisen Cements Company
1942	Koppers Company, Inc.	1966	Sinclair-Koppers Company
		1956	Soap and Detergent Association
1968	Homer Laughlin China Company	1962	Sperry Rand Corporation
1966	Laundry and Cleaners Allied Trades Association		Louisiana Army Ammunition Plant
1964	Leverack & Haines, Inc.	1968	Sprayed Mineral Fiber Manufacturers Association, Inc.
1936	Lead Industries Association	1967	Standard Oil Company (Indiana)
1958	London Transport Board	1964	Standard Oil Company (New Jersey)
1961	Lord Corporation	1965	Sturm, Ruger & Company, Inc.
	Hughes Chemical Co. Div.	1953	Sugar Beet Products Company
		1968	Systemed Corporation
1937	J. S. McCormick Company		
1937	Macklin Company	1945	Tata Services Limited
1966	Manufacturing Chemists' Assn.	1946	Tennessee Copper Company
1966	Marcona Mining Company		Div. of Tennessee Corporation
1944	Metropolitan Life Insurance Co.	1938	Texas Gulf Sulphur Company
1937	Mid-West Abrasive Company	1960	Toms River Chemical Corporation
1968	Midwestern Coating Corporation		
1936	Mine Safety Appliances Company	1936	Union Carbide Corporation
1968	Mobay Chemical Company	1936	United States Potters Association
1966	Mobil Oil Corporation	1936	United States Steel Corporation
1956	Jesse S. Moris & Son, Inc.		
		1937	Valley Mould and Iron Corporation
1963	Nalco Chemical Company	1960	Van Straaten Chemical Company
	Freeport Division	1938	Vesuvius Crucible Company
1966	National Coal Association		
1937	National Crushed Stone Assn., Inc.	1967	Wallace-Murray Corporation
1947	National Glass Sand Corporation		Simonds Abrasive Division
1937	National Grinding Wheel Co., Inc.	1937	Waltham Grinding Wheel Company
1937	National Industrial Sand Assn.	1937	Washington Mills Abrasive Company
1966	National Insulation Manufacturers Association	1937	Wecon Silica Company
		1962	Western Electric Company, Inc.
1937	National Lead Company	1937	Westfield Grinding Wheel Company
1945	National Sand and Gravel Assn., Inc.	1967	Westinghouse Air Brake Company
1938	National Slag Association		Westinghouse Air Brake Division
1962	Nederland duPont deNemours N. V.	1961	Westinghouse Brake and Signal Co., Ltd.
1967	Norton Company	1937	Westinghouse Electric Corporation
	Grinding Wheel Division	1968	Arthur C. Withrow Company
1963	Osborn Manufacturing Company	1936	Zinc Institute, Inc.
1953	Owens-Corning Fiberglass Corp.		
1936	Owens-Illinois, Inc.		
1954	Pacific Grinding Wheel Mfg. Co.		
1937	Pennsylvania Glass Sand Corporation		
1956	Pennsylvania Manufacturers' Assn. Insurance Company		
1960	Petrobras/RPBC		
1964	Pittsburgh Activated Carbon Co. Div. of Calgon Corporation		
1938	Portland Cement Association		
1937	PPG Industries		

1969 Annual Report

Date Joined	Company
1937	Abrasive Grain Association
1970	Abrasive Materials Division Norton Company
1937	Abrasive Products Company
1970	Abrasives Division Bendix Corporation
1960	Acme Abrasive Company
1936	Allegheny Ludlum Steel Corp.
1968	Allied Chemical Corporation
1970	Allison Campbell Division American Chain & Cable Co., Inc.
1936	Aluminum Company of America
1969	Aluminum Co. of Canada (Alcan)
1947	American Can Company, Inc.
1937	American Emery Wheel Works
1938	American Insurance Association
1944	American Iron and Steel Institute
1967	American Metal Climax, Inc.
1937	American Mining Congress
1946	American Mutual Insurance Alliance
1944	American Optical Company
1967	American Petroleum Institute
1964	American Polish & Chemical Corp.
1936	American Smelting & Refining Co.
1968	American Standard, Inc.
1969	American Textile Mfrs. Institute
1936	Anaconda Company
1961	Armco Steel Corporation
1946	Armstrong Chemcon, Inc.
1960	Asbestos Cement Products Assn.
1968	Asbestos Textile Institute
1970	Atlantic Abrasive Corporation
1947	Atlas Chemical Industries, Inc.
1968	Auto-Flo Company Division of Masco Corporation
1936	Automobile Manufacturers Assn.
1937	Avco Bay State Abrasives Division
1970	The Bahnsen Company
1968	Frank Bancroft Company, Inc.
1968	Bituminous Coal Operators' Assn.
1966	The Boeing Company
1970	Borden, Inc.
1970	Brockway Glass Company, Inc.
1944	Brush Beryllium Company
1967	Buckeye Abrasive, Inc.
1962	George H. Bullard Company, Inc.
1967	Butler County Mushrooms Farm, Inc.
1963	Can Manufacturers Institute, Inc.
1937	Carborundum Company
1932	Celanese Corporation
1937	Central Silica Company
1967	Chayes Abrasives Division Chayes Dental Instrument Co.
1937	Chicago Wheel & Manufacturing Co.
1954	Cincinnati Milling Products Div. Cincinnati Milling Machine Co.
1944	Robert F. Coleman, Inc.
1961	Colonial Abrasive Products Co.
1963	Comasco Aluminum (Bell Bay) Ltd.
1956	Compennia Siderurgica Nacional
1938	Consolidation Coal Company, Inc.
1953	Continental Can Company, Inc.
1968	Continental Insurance Companies
1937	Cortland Division American Abrasive Corporation
1955	CPC International
1962	Cradle Petroleum Corporation
1937	A. P. deSanno & Son, Inc.
1952	Diamond Shamrock Corporation
1969	Dr. Skin Care Products, Inc.
1938	Dow Chemical Corporation
1937	Dresser Division Hercules, Inc.

*Multiple membership

Date Joined	Company
1937	Dravo Corporation
1962	E. I. du Pont de Nemours & Co.
1966	Eastman Kodak Company
1963	Edmar Abrasive Company
1943	Electro Refractories & Abrasives Division of Ferro Corporation
1969	Environmental Sciences, Inc.
1956	Equitable Life Assurance Society of the United States
1937	Ethyl Corporation
1937	Exolon Company
1949	Ferro Corporation
1964	FMC Corporation
1967	FMR Corporation
1937	Foots Mineral Company
1947	Ford Motor Company
1969	Fortoria Glass Company
1936	Foundry Supply Manufacturers' Group
1969	Frantz, McConnell & Seymour
1963	Freeport Division Nalco Chemical Company
1943	Gardner Machine Company
1958	Geigy-Werke Schwellenbach A. G.
1937	General Abrasive Company
1968	General Asbestos & Rubber Div. Raybestos-Mannhattan, Inc.
1970	General Dynamics Corporation
1947	General Electric Company
1937	General Grinding Wheel Corp.
1951	General Mills, Inc.
1942	General Motors Corporation
1954	Georgia Kaolin Company
1968	Glass Containers Mfrs. Institute, Inc.
1937	Glenshaw Glass Company, Inc.
1967	Goodyear Tire & Rubber Company
1967	Grinding Wheel Division Norton Company
1937	Grinding Wheel Institute
1950	Gulf Oil Corporation
1968	Guarini-Bacon Division Certain-teed Products Corp.
1936	Hail China Company
1937	Hamilton Division American Abrasive Corporation
1968	Hamford Environmental Health Fdn.
1967	Hanson Company
1958	Hazleton Laboratories
1961	Hughson Chemical Company Division of Lord Corporation
1937	Huntington Alloy Products Division International Nickel Co., Inc.
1947	Inland Steel Company
1947	International Business Machines Corp.
1967	ITT Abrasive Products Company
1936	Johns-Manville Corporation
1939	Jones & Laughlin Steel Corp.
1963	Jowett & Rodgers Company
1967	Kasco Abrasives, Inc.
1955	Kaweski Saryclo Industries, Inc.
1946	Kennecott Copper Corporation
1942	Koppers Company, Inc.
1970	Laclede Steel Company
1968	Homer Laughlin China Company
1964	Laversack & Haines, Inc.
1936	Lead Industries Association
1958	London Transport Board
1962	Louisiana Army Ammunition Plant Sperry Rand Corporation
1937	J. S. McCormick Company
1946	Mannhattan Rubber Division Raybestos-Mannhattan, Inc.
1968	Manufacturing Chemists Assn., Inc.
1968	Marcons Mining Company
1949	Metropolitan Life Insurance Co.

Date Joined	Company
1968	Midwestern Coating Corporation
1936	Mine Safety Appliances Company
1949	Mobil Oil Corporation
1956	Jesse S. Morie & Son, Inc.
1966	National Coal Association
1937	National Crushed Stone Assn., Inc.
1969	National Forge Company
1947	National Glass Sand Corporation
1937	National Grinding Wheel Division Federal-Mogul Corporation
1937	National Industrial Sand Assn.
1966	National Insulation Mfrs. Assn.
1937	National Lead Company
1945	National Sand & Gravel Assn., Inc.
1938	National Slag Association
1962	Nederland du Pont de Nemours N. V.
1963	Osborn Manufacturing Company
1953	Owens-Corning Fiberglass Corp.
1936	Owens-Illinois, Inc.
1954	Pacific Grinding Wheel Company, Inc.
1937	Pennsylvania Glass Sand Corp.
1956	Pennsylvania Manufacturers' Assn. Insurance Company
1960	Petrobras/RPSC
1964	Pittsburgh Activated Carbon Div. Calgon Corporation
1970	Pneumatil Corporation
1938	Portland Cement Association
1937	PPG Industries
1967	Precision Grinding Wheel Co., Inc.
1952	Red Hill Grinding Wheel Corp.
1970	Rex-Gut Products Company Division of Clevepak Corp.
1937	H. H. Robertson Company
1969	Rome Division Revere Copper and Brass, Inc.
1937	St. Joseph Lead Company
1968	Sauerisen Cements Company
1967	Simons Abrasive Division Wallace-Murray Corporation
1966	Sinclair-Koppers Company
1956	Soap and Detergent Association
1968	Sprayed Mineral Fiber Mfrs. Assn., Inc.
1964	Standard Oil Company (New Jersey)
1962	Stauffer Chemical Company
1965	Sturm, Ruger & Company, Inc.
1953	Sugar Beet Products Company
1968	Systemed Corporation
1945	Tata Services Limited
1969	Tenneco, Inc.
1946	Tennessee Copper Company Div. of Tennessee Corporation
1938	Texas Gulf Sulphur Company
1960	Toms River Chemical Corporation
1970	Travelers Insurance Companies
1938	Union Carbide Corporation
1968	United States Asbestos Division Raybestos-Mannhattan, Inc.
1936	United States Pottery Association
1936	United States Steel Corporation
1960	Van Sraaten Chemical Company
1938	Vesuvius Crucible Company
1937	Waltham/Hampden Grinding Wheel Co.
1937	Washington Mills Abrasive Co.
1937	Wedron Silica Company
1962	Western Electric Company, Inc.
1937	Westfield Grinding Wheel Co.
1937	Westinghouse Electric Corporation
1968	Arthur C. Witrow Company
1936	Zinc Institute, Inc.

1970 Annual Report

MEMBERS

Date Joined	Company
1937	* Abrasive Grain Association
1970	Abrasive Materials Division Norton Company
1937	Abrasive Products Company
1970	Abrasives Division Bendix Corporation
1936	Acme Abrasive Company
1971	Adamas Carbide Corporation
1936	Allegheny Ludlum Steel Corporation
1936	Allied Chemical Corporation
1970	Allison Campbell Division American Chain & Cable Co., Inc.
1936	Aluminum Company of America
1969	Aluminum Company of Canada, Ltd.
1971	American Apparel Manufacturers Assn.
1947	American Can Company
1938	* American Insurance Association
1944	American Iron and Steel Institute
1937	American Metal Climax, Inc.
1937	American Mining Congress
1945	* American Mutual Insurance Alliance
1944	American Optical Corporation
1967	American Petroleum Institute
1946	American Smelting & Refining Company
1964	American Standard, Inc.
1969	* American Textile Mfrs. Institute
1936	Anacosta Company
1970	Anso American Corp. of South Africa, Ltd.
1970	Arknaut Insurance Company
1963	Armstrong Chemcon, Inc.
1969	Asbestos Cement Products Association
1970	Asbestoplay Corporation
1966	Asbestos Textile Institute
1970	Atlantic Abrasive Corporation
1947	Atlas Chemical Industries, Inc.
1968	Auto-Flo Company Division of Masco Corporation
1946	Automobile Manufacturers Association
1947	Aven Bay State Abrasives Division
1970	The Bahson Company
1965	Frank Bancroft Company, Inc.
1936	The Boring Company
1970	Borcon, Inc.
1971	Bright Bay Industrial Division Weldon Roberts Rubber Company
1944	Brush Beryllium Company
1967	Buckeye Abrasive, Inc.
1952	George H. Bullard Company, Inc.
1961	Butler County Mushroom Farm, Inc.
1955	PC International
1955	Can Manufacturers Institute, Inc.
1971	Carbide Division, Hawmet Corp.
1937	Carborundum Company
1971	Carmet Company
1952	Celanese Corporation
1971	* Cemented Carbide Producers Assn.
1937	Central Silica Company
1967	Chavez Abrasives Division Chavez Dental Instrument Co.
1937	Chicago Wheel & Manufacturing Co.
1938	Ciba-Geigy AG.
1944	Cincinnati Milacron, Inc. Products Division
1944	Robert F. Coleman, Inc.
1951	Colonial Abrasive Products Company
1958	Companhia Siderurgica Nacional
1946	Communication Coal Company, Inc.
1955	Continental Can Company, Inc.
1958	Continental Insurance Companies
1946	Copperhill Operations Div. of Cities Service Company
1947	Cortland Division American Abrasive Corporation
1962	Crescent Petroleum Corporation

Date Joined	Company
1937	A. P. deSanno & Son, Inc.
1932	Diamond Shamrock Corporation
1939	Dow Chemical Corporation
1937	Drakenfeld Division, Hercules, Inc.
1937	Dravo Corporation
1962	E. I. du Pont de Nemours & Co.
1966	Eastman Kodak Company
1963	Edmar Abrasive Company
1943	Electro Refractories & Abrasives Division of Ferro Corporation
1969	Environmental Sciences, Inc.
1936	Equitable Life Assurance Society of the United States
1937	Ethyl Corporation
1937	Exolon Company
1967	FMR Corporation
1949	Ferro Corporation
1971	Firth Sterling, A Teledyne Company
1937	Flake Mineral Company
1947	Ford Motor Company
1936	Foundry Supply Manufacturers' Group
1963	Freepore Division Nalco Chemical Company
1943	Gardner Machine Company
1937	General Abrasive Company
1968	General Asbestos & Rubber Division Raychem-Manhattan, Inc.
1970	General Cigar Company
1970	Gen. Dynamics Corporation
1947	General Electric Company
1937	General Grinding Wheel Corporation
1931	General Mills, Inc.
1942	General Motors Corporation
1954	Georgia Kaolin Company
1968	Glass Containers Mfrs. Institute, Inc.
1937	Glenshaw Glass Company, Inc.
1967	Goodyear Tire & Rubber Company
1967	Grinding Wheel Division Norton Company
1937	* Grinding Wheel Institute
1950	Gulf Oil Corporation
1968	Gustin Bacon Division Certain-Red Products Corporation
1936	Hall China Company
1937	Hammann Division American Abrasive Corporation
1966	Hanford Environmental Health Fdn.
1967	Hanson Company
1937	Huntington Alloy Products Division International Nickel Company, Inc.
1971	Hydro Carbide Corporation
1947	Inland Steel Company
1947	International Business Machines Corp.
1970	International Lead Zinc Research Org.
1967	ITT Abrasive Products Company
1936	Johns-Manville Corporation
1939	Jones & Laughlin Steel Corporation
1964	Jowett & Rodgers Company
1967	Kasco Abrasives Coleman Systems Company
1955	Kawaca Beryllia Industries, Inc.
1946	Kennecott Copper Corporation
1942	Koppers Company, Inc.
1970	Laclede Steel Company
1968	Homer Laughlin China Company
1964	Lavenack & Haines, Inc.
1936	Lead Industries Association, Inc.
1938	London Transport Executive
1962	Louisiana Army Ammunition Plant Sperdy Rand Corporation
1937	J. S. McCormick Company
1946	Manhattan Rubber Division Raychem-Manhattan, Inc.
1966	Manufacturing Chemists Association
1966	Marcona Mining Company

Date Joined	Company
1970	Medical Supply Company
1970	Metal Carbides Corporation
1949	Metropolitan Life Insurance Comp.
1937	Michigan Abrasive Company Grinding Wheel Division
1968	Midwestern Coating Corporation
1946	Mine Safety Appliances Company
1949	Mobil Oil Corporation
1936	Jesse S. Morse & Son, Inc.
1971	Mullis Metals, Inc.
1971	National Association of Manufactur.
1966	National Coal Association
1937	National Grinding Wheel Division Federal-Mogul Corporation
1937	National Industrial Sand Association
1966	National Insulation Mfrs. Association
1937	National Lead Company
1938	National Slag Association
1962	Nederland du Pont de Nemours & Co.
1971	Newcomer Products, Inc.
1963	Osborn Manufacturing Company
1933	Owens-Corning Fiberglas Corporation
1936	Owens-Illinois, Inc.
1937	PPG Industries, Inc.
1951	Pacific Grinding Wheel Company, Inc.
1917	Pennsylvania Glass Sand Corporation
1970	Pneumani Corporation
1938	Portland Cement Association
1970	Potters Brothers, Inc.
1967	Precision Grinding Wheel Co., Inc.
1932	Red Hill Grinding Wheel Corporation
1970	Res-Cut Products Company Division of Cleveland Corporation
1937	H. H. Robertson Company
1937	St. Joe Minerals Corporation
1971	Sandvik Steel, Inc.
1936	Sauerstein Cement Company
1971	Selenium-Tellurium Development Ass.
1967	Simonds Abrasive Division Wallace-Murray Corporation
1966	Sinclair-Koppers Company
1936	Soap and Detergent Association
1968	Sprayed Mineral Fiber Mfrs. Assn., Inc.
1964	Standard Oil Company (New Jersey)
1962	Stauffer Chemical Company
1963	Sturm, Rueger & Company, Inc.
1934	Sugar Beet Products Company
1968	Systemed Corporation
1959	TRW Hazleton Laboratories
1943	Tata Services Limited -
1969	Tenneco, Inc.
1938	Texas Gulf Sulphur Company
1960	Toms River Chemical Corporation
1970	Travelers Insurance Companies
1971	Tungsten Alloy Mfrs. Co., Inc.
1936	Union Carbide Corporation
1970	United States Mineral Products Co.
1936	United States Pottery Association
1936	United States Steel Corporation
1960	Van Straaten Chemical Company
1938	Vesuvius Crucible Company
1971	VR/Weyssin Company
1971	Walmer Corporation
1937	Waltham/Hampden Grinding Wheel Co.
1937	Washington Mills Abrasive Company
1937	Wedron Silica Company
1971	Wendt-Sonit/Unimer, United Greenfield Div. of TRW, Inc.
1962	Western Electric Company, Inc.
1937	Westfield Grinding Wheel Company
1937	Westinghouse Electric Corporation
1971	Willey Carbide Tool Company
1968	Arthur C. Withrow Company
1936	Zinc Institute, Inc.

* Multiple membership
* Group membership

NEW MEMBERS -- 1971

American Apparel Manufacturer's Association

American Foundrymen's Society

American Steel Foundries

Argonaut Insurance Company

Asbestospray Corporation

Cemented Carbide Products Association

Chemico Metals Corp.

General Cigar Company

International Lead Zinc Research Organization

National Association of Manufacturers

Selenium-Tellurium Development Association, Inc.

Teledyne Brown Engineering

-- from Minutes of the Board of Trustees Meetings

March 9 & October 11, 1971

NEW MEMBERS -- 1972

Buhl Optical Company ,

Chicopee Manufacturing Company

Columbia Gas System Service Corporation

Consolidated Natural Gas Service Co.,
and Peoples Natural Gas Company

Industrial Bio-Test Laboratories, Inc.

Lee-Norse Company

Miles Laboratories

Organization Resources Counselors, Inc.

Safety First Industries, Inc.

Shell Oil Company

Tri-State Engineering Company

-- from Minutes of the Board of Trustees Meetings

February 8, May 9, and October 9, 1972

111 MEMBERS

Date Joined	Company	Date Joined	Company
1937	*Abrasive Grain Association	1952	Celanese Corporation
1936	Allegheny Ludlum Industries, Inc.	1971	*Cemented Carbide Producers Association
1956	Allied Chemical Corporation	1968	Certain-Teed Saint Gobain Insulation Corp.
1936	Aluminum Company of America	1972	Chicopee Manufacturing Company
1969	Aluminum Company of Canada, Ltd.	1958	Ciba-Geigy AG
1947	American Can Company	1972	Columbia Gas System Service Corporation
1971	American Foundrymen's Society	1958	Companhia Siderurgica Nacional
1938	*American Insurance Association	1973	Consolidated Edison Company of N.Y., Inc.
1944	American Iron and Steel Institute	1972	Consolidated Natural Gas Service Company
1957	American Metal Climax, Inc.	1936	Consolidation Coal Company, Inc.
1937	American Mining Congress	1953	Continental Can Company, Inc.
1945	*American Mutual Insurance Alliance	1962	Creole Petroleum Corporation
1944	American Optical Corporation		
1967	American Petroleum Institute	1952	Diamond Shamrock Corporation
1936	American Smelting & Refining Company	1973	Dow Chemical U. S. A.
1969	American Textile Mfrs. Institute, Inc.	1937	Drakenfeld Division Hercules, Inc.
1970	Argonaut Insurance Company	1937	Dravo Corporation, Manufacturing Group
1973	Asbestospry Corporation		
1970	The Bahnsen Company	1936	E. I. du Pont de Nemours & Company
1970	Brockway Glass Company, Inc.	1966	Eastman Kodak Company
1944	Brush Wellman, Inc.	1973	Minerals & Chemical Division Engelhard Minerals and Chemical Corp.
1972	Buhl Optical Company	1973	Environmental Shields Services, Inc.
1961	Butler County Mushroom Farm, Inc.	1956	Equitable Life Assurance Society of the United States
1955	CPC International, Inc.	1964	Exxon Corporation
1953	Can Manufacturers Institute, Inc.		

*Multiple Membership

1473

Date Joined	Company	Date Joined	Company
1973	Falcon Foundry Company	1955	Kawecki Berylco Industries, Inc.
1949	Ferro Corporation	1973	Keystone Metal Company
1947	Ford Motor Company	1942	Koppers Company, Inc.
1936	Foundry Supply Manufacturers Group		
1968	General Asbestos & Rubber Division, Raybestos-Manhattan, Inc.	1970	Laclede Steel Company
1970	General Clgar Company, Inc.	1968	Homer Laughlin China Company
1947	General Electric Company	1972	Lee-Norse Company
1951	General Mills, Inc.	1962	Louisiana Army Ammunition Plant, Sperry Rand Corporation
1942	General Motors Corporation	1937	J.S. McCormick Company
1954	Georgia Kaolin Company	1966	Marcona Mining Company
1937	Glenshaw Glass Company, Inc.	1970	Marlon Health and Safety
1937	*Grinding Wheel Institute	1937	Metropolitan Life Insurance Company
1950	Gulf Oil Corporation	1965	Miles Laboratories, Inc.
		1936	Mine Safety Appliances Company
1936	Hall China Company	1949	Mobil Oil Corporation
1972	Heinz U.S.A. (Div. of H.J. Heinz Co.)	1956	Jesse S. Morie & Son, Inc.
1973	Howell Industrial Clinic	1936	Motor Vehicle Mfrs. Assn. of U.S., Inc.
1937	Huntingdon Alloy Products Division, International Nickel Co., Inc.	1937	NL Industries, Inc.
		1971	National Association of Manufacturers
1947	ICI America, Inc.	1973	National Forge Company
1972	Industrial Bio-Test Laboratories, Inc.	1938	National Slag Association
1973	Ingersoll-Rand Company		
1947	Inland Steel Company	1972	Organization Resources Counselors, Inc.
1947	International Business Machines Corp.	1953	Owens-Corning Fiberglas Corporation
1970	International Lead Zinc Research Org.	1936	Owens-Illinois, Inc.
1936	Johns-Manville Corporation	1937	PPG Industries, Inc.
1939	Jones & Laughlin Steel Corporation	1937	Pennsylvania Glass Sand Corporation

11

Date Joined	Company	Date Joined	Company
1972	Peoples Natural Gas Company	1965	Sturm, Ruger & Company, Inc.
1970	Pneumafil Corporation	1969	Tenneco, Inc.
1938	Portland Cement Association	1938	Texasgulf, Inc.
1970	Potters Industries, Inc.	1966	Thermal Insulation Manufacturers, Inc.
1973	Pullman-Standard	1960	Toms River Chemical Corporation
1937	H. H. Robertson Company	1970	Travelers Insurance Companies
1972	Safety First Industries, Inc.	1972	Tri-State Engineering Company
1973	The Sager Glove Corporation	1936	Vulcan Carbide Corporation
1937	St. Joe Minerals Corporation	1970	United States Mineral Products Company
1956	Sauerisen Cements Company	1936	United Potters Association
1956	Seattle Services Division	1936	United States Steel Corporation
	The Roeling Company		
1971	Selenium-Tellurium Development Association, Inc.	1960	Van Stratten Chemical Company
1972	Shell Oil Company	1938	Vesuvius Crucible Company
1966	Glendale-Koppers Company	1937	Weldron Silica Div.
1956	Soap and Detergent Association		Del Monte Properties Company
1973	Stark Associates, Inc.	1962	Western Electric Company, Inc.
1962	Stauffer Chemical Company	1937	Westinghouse Electric Corporation
1973	A. Stuckl Company	1968	Arthur C. Withrow Company

Date Joined	Company	Date Joined	Company
1974	Fostoria Glass Company	1973	Keystone Metal Company
1936	Foundry Supply Manufacturers Group	1974	Kopp Glass, Inc.
1968	General Asbestos & Rubber Division, Raybestos-Manhattan, Inc.	1942	Koppers Company, Inc.
1970	General Cigar Company, Inc.	1970	Laclede Steel Company
1947	General Electric Company	1968	Homer Laughlin China Company
1951	General Mills, Inc.	1974	Lenox Crystal, Inc.
1942	General Motors Corporation	1962	Louisiana Army Ammunition Plant Thiokol/Louisiana Division
1974	General Refractories Company	1937	J. S. McCormick Company
1954	Georgia Kaolin Company	1966	Marcona Mining Company
1937	Glenshaw Glass Company, Inc.	1970	Marion Health & Safety, Inc.
1937	*Grinding Wheel Institute	1974	Jas. H. Matthews & Company
1950	Gulf Oil Corporation	1937	Metropolitan Life Insurance Company
1936	Hall China Company	1965	Miles Laboratories, Inc.
1972	Heinz U. S. A. (Div. of H. J. Heinz Co.)	1974	Milliken Brick Company
1973	Howell Industrial Clinic	1936	Mine Safety Appliances Company
1937	Huntington Alloy Products Division, International Nickel Co., Inc.	1974	Mobay Chemical Company
1947	ICI America, Inc.	1949	Mobil Oil Corporation
1973	Ingersoll-Rand Company	1936	Motor Vehicle Manufacturers Assn. of U. S., Inc.
1947	Inland Steel Company	1937	N.L. Industries, Inc.
1947	International Business Machines Corp.	1974	National Annealing Box Company
1970	International Lead Zinc Research Org.	1973	National Forge Company
1974	International Technical Information Institute	1974	National Independent Coal Operators' Assn.
1936	Johns-Manville Corporation	1938	National Slag Association
1939	Jones & Laughlin Steel Corporation	1972	Organization Resources Counselors, Inc.
1955	Kawceki Berylen Industries, Inc.	1953	Owens-Corning Fiberglass Corporation

Date Joined	Company	Date Joined	Company
1936	Owens-Illinois, Inc.	1973	Starks Associates, Inc.
1937	PPG Industries, Inc.	1962	Stauffer Chemical Company
1937	Pennsylvania Glass Sand Corp.	1965	Sturm, Ruger & Company, Inc.
1972	Peoples Natural Gas Company	1969	Tenneco, Inc.
1970	Pneumafil Corporation	1966	Thermal Insulation Manufacturers Assn., Inc.
1938	Portland Cement Association	1970	Travelers Insurance Company
1970	Potters Industries, Inc.	1972	Tri-State Engineering Company
1973	Pullman-Standard	1936	Union Carbide Corporation
1937	H. H. Robertson Company	1974	United States Gypsum Company
1972	Safety First Industries, Inc.	1970	U. S. Mineral Products Company
1973	The Sager Glove Corporation	1936	U. S. Pottery Association
1937	St. Joe Minerals Corporation	1936	United States Steel Corporation
1956	Saunderland Cements Company	1960	Van Stratten Chemical Company
1956	Seattle Services Division, The Boeing Company	1938	Vesuvius Crucible Company
1971	Selenium-Tellurium Development Association, Inc.	1974	Watson-Standard Company
1974	Sharon Steel Corporation	1937	Weston Silica Division, Del Monte Properties Company
1972	Shell Oil Company	1962	Western Electric Company, Inc.
1974	Shenango Incorporated	1937	Westinghouse Electric Corporation
1956	Soap and Detergent Association	1968	Arthur C. Withrow Company

1937	*Abrasive Grain Association	1937	*Grinding Wheel Institute
1936	Allegheny Ludlum Industries, Inc.	1950	Gulf Oil Corporation
1956	Allied Chemical Corporation	1936	Hall China Company
1936	Aluminum Company of America	1972	Heinz U.S.A. (Div. of H. J. Heinz Co.)
1969	Aluminum Company of Canada, Ltd.	1973	Howell Industrial Clinic
1947	American Can Company	1937	Huntington Alloys, Inc.
1971	American Foundrymen's Society	1975	Industrial Gasket & Shim Co., Inc.
1938	*American Insurance Association	1973	Ingersoll-Rand Company
1944	American Iron and Steel Institute	1947	Inland Steel Company
1957	American Metal Climax, Inc.	1947	IBM Corporation
1937	American Mining Congress	1970	International Lead Zinc Research Org.
1945	*American Mutual Insurance Alliance	1974	International Technical Information Inst.
1944	American Optical Corporation	1936	Johns-Manville Corporation
1967	American Petroleum Institute	1939	Jones & Laughlin Steel Corporation
1936	ASARCO Incorporated	1955	Kawecki Berylico Industries, Inc.
1969	American Textile Mfrs. Institute, Inc.	1974	Kopp Glass, Inc.
1966	ARCO/Polymers, Inc.	1942	Koppers Company, Inc.
1970	Argonaut Insurance Company	1970	Laclede Steel Company
1974	BASF Wyandotte Corporation	1968	Horner Laughlin China Company
1970	The Bahnsen Company	1974	Lenox Crystal, Inc.
1944	Brush Wellman, Inc.	1937	J. S. McCormick Company
1955	CPC International, Inc.	1966	Marcona Mining Company
1951	Can Manufacturers Institute, Inc.	1970	Marion Health & Safety, Inc.
1952	Celanese Corporation	1937	Metropolitan Life Insurance Company
1971	*Cemented Carbide Producers Assn.	1965	Miles Laboratories, Inc.
1968	Certain-Tec St. Gobain Insulation Corp.	1974	Milliken Brick Company
1974	Chrysler Corporation	1936	Mine Safety Appliances Company
1958	Ciba-Geigy AG	1974	Mobay Chemical Company
1974	Cuk Industries Inc.	1975	Monongahela Iron & Metal Company, Inc.
1972	Columbia Gas System Service Corporation	1936	Motor Vehicle Mfrs. Assn. of U.S., Inc.
1975	Commercial Shearling, Inc.	1937	NL Industries, Inc.
1958	Companhia Siderurgica Nacional	1974	National Annealing Box Company
1973	Consolidated Edison Co. of New York, Inc.	1973	National Forge Company
1972	Consolidated Natural Gas Service Company	1972	Organization Resources Counselors, Inc.
1975	Consolidation Coal Company, Inc.	1953	Owens-Corning Fiberglas Corporation
1975	D'Appolonia Consulting Engineers, Inc.	1936	Owens-Illinois, Inc.
1974	DeSoto, Inc.	1937	PPG Industries, Inc.
1952	Diamond Shamrock Corporation	1937	Pennsylvania Glass Sand Corporation
1973	Dow Chemical U.S.A.	1972	Peoples Natural Gas Company
1937	Drakenfeld Division, Hercules, Inc.	1975	Pittsburgh & Lake Erie Railroad
1937	Dravo Corporation	1970	Pneumafil Corporation
1936	E. I. du Pont de Nemours & Company	1938	Portland Cement Association
1966	Eastman Kodak Company	1970	Potters Industries, Inc.
1971	Minerals & Chemicals Division, Engelhard Minerals & Chemicals Corp.	1973	Pullman-Standard
1975	Epi Metals Corporation	1968	Raybestos-Manhattan, Inc.
1956	Equitable Life Assurance Society of U.S.	1937	H. H. Robertson Company
1964	Exxon Corporation	1972	Safety First Industries, Inc.
1973	Falcon Foundry Company	1973	The Sager Glove Corporation
1974	Fentoria Glass Company	1937	St. Joe Minerals Corporation
1936	Foundry Supply Manufacturers Group	1956	Sauereisen Cements Company
1970	General Cigar Company, Inc.	1956	Seattle Services Division, The Boeing Co.
1947	General Electric Company	1971	Selenium-Tellurium Development Assn., Inc.
1951	General Mills, Inc.	1974	Sharon Steel Corporation
1942	General Motors Corporation	1972	Shell Oil Company
1974	General Refractories Company Co.	1974	Shenango Incorporated
1954	Georgia Kaolin Company	1956	Soap and Detergent Association
		1975	The Standard Oil Company

*Multiple Membership

<u>Date Joined</u>	<u>Company</u>
1962	Stauffer Chemical Company
1965	Sturm, Ruger & Company, Inc.
1969	Tenneco, Inc.
1966	Thermal Insulation Manufacturers Association, Inc.
1970	Travelers Insurance Companies
1972	Tri-State Engineering Company
1936	Union Carbide Corporation
1974	United States Gypsum Company
1970	U. S. Mineral Products Company
1936	U. S. Potters Association
1936	United States Steel Corporation

<u>Date Joined</u>	<u>Company</u>
1960	Van Straaten Chemical Company
1938	Vesuvius Crucible Company
1975	Vulcan Mold & Iron Company
1975	Washington Mould, Machine & Foundry Company
1974	Watson-Standard Company
1937	Wedron Silica Division, Del Monte Properties Company
1962	Western Electric Company, Inc.
1937	Westinghouse Electric Corporation
1968	Arthur C. Withrow Company
1975	Young Galvanizing, Inc.

NEW MEMBERS

The Ansul Company
 Consolidation Coal Company, Inc.
 E. D'Appolonia Consulting Engineers, Inc.
 Epic Metals Corporation
 Industrial Gasket & Shim Company, Inc.
 Monongahela Iron & Metal Company, Inc.
 Pittsburgh & Lake Erie Railroad
 The Standard Oil Company
 Vulcan Iron & Mold Company
 Washington Mould, Machine & Foundry Company
 Young Galvanizing, Inc.

1976 members - 1976 Annual Reports

<u>Date Joined</u>	<u>Company</u>	<u>Date Joined</u>	<u>Company</u>
1937	*Abrasive Grain Association	1973	Falcon Foundry Co.
1976	Allegheny County Sanitary Authority	1976	Fort Pitt Steel Casting
1936	Allegheny Ludlum Industries, Inc.	1974	Fostoria Glass Co.
1956	Allied Chemical Corp.	1976	Franklin Glue Co.
1936	Aluminum Company of America	1936	Foundry Supply Manufacturers Group
1969	Aluminum Company of Canada, Ltd.	1970	General Cigar Co., Inc.
1947	American Can Co.	1947	General Electric Co.
1971	American Foundrymen's Society	1951	General Mills, Inc.
1938	*American Insurance Association	1942	General Motors Corp.
1944	American Iron and Steel Institute	1974	General Refractories Co.
1957	AMAX, Inc.	1954	Georgia Kaolin Co.
1937	American Mining Congress	1937	Grinding Wheel Institute
1945	*American Mutual Insurance Alliance	1950	Gulf Oil Corp.
1944	A. O. Safety Products (Div. of American Optical Corp.)	1976	Halcon International, Inc.
1967	American Petroleum Institute	1936	Hall China Co.
1976	American Restaurant China Council, Inc.	1976	Harbison-Walker Refractories
1936	ASARCO Incorporated	1972	Heinz U.S.A. (Div. of H. J. Heinz Co.)
1969	American Textile Mfrs. Institute, Inc.	1976	Hill & Griffith Co.
1976	American Welding & Manufacturing Co.	1973	Howell Industrial Clings
1976	American Wood Preservers Institute	1937	Huntington Alloys, Inc.
1976	Americhem Inc.	1975	Industrial Gasket & Shim Co., Inc.
1976	Anaconda Co., Wire & Cable Div.	1973	Ingersoll-Rand Co.
1966	ARCO/Polymers, Inc.	1947	Inland Steel Co.
1970	Argonaut Insurance Co.	1947	IBM Corp.
1974	BASF Wyandotte Corp.	1970	International Lead Zinc Research Org.
1970	The Bahnsen Co.	1974	International Technical Information Inst.
1944	Brush Wellman, Inc.	1936	Johas-Manville Corp.
1955	CPC International, Inc.	1939	Jones & Laughlin Steel Corp.
1953	Can Manufacturers Institute, Inc.	1955	Kawecki Beryco Industries, Inc.
1971	*Cemented Carbide Producers Association	1974	Kopp Glass, Inc.
1968	Certain-Teed St. Gobain Insulation Corp.	1942	Koppers Co., Inc.
1974	Chrysler Corp.	1970	Laclede Steel Co.
1958	Ciba-Geigy AG	1962	Lagoven, S.A.
1974	Colt Industries Inc.	1968	Homer Laughlin China Co.
1972	Columbia Gas System Service Corp.	1974	Lenox Crystal, Inc.
1976	Commercial Shearings, Inc.	1937	J. S. McCormick Co.
1958	Companhia Siderurgica Nacional	1976	Marathon Oil Co.
1973	Consolidated Edison Co. of New York, Inc.	1966	Marcona Mining Co.
1972	Consolidated Natural Gas Service Co.	1970	Marion Health & Safety, Inc.
1975	Consolidation Coal Co., Inc.	1937	Metropolitan Life Insurance Co.
1974	D'Appolonia Consulting Engineers, Inc.	1965	Miles Laboratories, Inc.
1974	DrSoto, Inc.	1974	Milliken Brick Co.
1952	Diamond Shamrock Corp.	1936	Mine Safety Appliances Co.
1976	Dick Corp.	1974	Mobay Chemical Co.
1973	Dow Chemical U.S.A.	1975	Monongahela Iron & Metal Co., Inc.
1976	Dow Corning Corp.	1936	Motor Vehicle Mfrs. Assn. of U.S., Inc.
1947	Drakenfeld Division, Hercules, Inc.	1937	NL Industries, Inc.
1937	Dravo Corp.	1974	National Annealing Box Co.
1936	E. I. du Pont de Nemours & Co.	1973	National Forge Co.
1966	Eastman Kodak Co.	1972	Organization Resources Connectors, Inc.
1973	Minerals & Chemicals Division, Engelhard Minerals & Chemicals Corp.	1953	Owens-Corning Fiberglass Corp.
1974	Epic Metals Corp.	1937	PPG Industries, Inc.
1956	Equitable Life Assurance Society of U. S.	1937	Pennsylvania Glass Sand Corp.
1964	Exxon Corp.	1972	Peoples Natural Gas Co.
1976	Essex Group	1975	Pittsburgh & Lake Erie Railroad
		1970	Pneumafil Corp.
		1938	Portland Cement Association

IHR Members (continued)

<u>Date Joined</u>	<u>Company</u>	<u>Date Joined</u>	<u>Company</u>
1970	Potters Industries, Inc.	1969	Tenneco, Inc.
1973	Pullman-Standard	1966	Thermal Insulation Mfrs. Assn., Inc.
1976	RAD Services, Inc.	1976	Tile Council of America, Inc.
1968	Raybestos-Manhattan, Inc.	1970	Travelers Insurance Co.
1976	The Refractories Institute	1972	Tri-State Engineering Co.
1937	H. H. Robertson Co.	1976	II-VI Inc.
1976	SCM Corp.	1936	Union Carbide Corp.
1972	Safety First Industries, Inc.	1974	United States Gypsum Co.
1976	Schering-Plough Corp.	1970	U. S. Mineral Products Co.
1973	The Sager Glove Corp.	1936	U. S. Potters Association
1937	St. Joe Minerals Corp.	1936	United States Steel Corp.
1956	Sauereisen Cements Co.	1960	Van Straaten Chemical Co.
1956	Seattle Services Div., The Boeing Co.	1972	Vasuvius Crucible Co.
1971	Selenium-Tellurium Development Assn., Inc.	1975	Vulcan Mold & Iron Co.
1976	Senco Products, Inc.	1976	WABCO Transportation Systems Group
1974	Sharon Steel Corp.	1975	Washington Mould Machine & Foundry Co.
1972	Shell Oil Co.	1974	Watson-Standard Co.
1974	Shenango Inc.	1937	Wedron Silica Division, Del Monte Properties Co.
1956	Soap and Detergent Association	1962	Western Electric Co., Inc.
1975	The Standard Oil Co.	1937	Westinghouse Electric Corp.
1962	Stauffer Chemical Co.	1976	Williams & Co., Inc.
1976	Stellite Division, Cabot Corp.	1968	Arthur C. Withrow Co.
1965	Sturm, Ruger & Co., Inc.	1975	Young Galvanizing, Inc.

NEW MEMBERS

Allegheny County Sanitary Authority
 American Restaurant China Council, Inc.
 American Welding and Manufacturing Company
 American Wood Preservers Institute
 Americhem, Incorporated
 Anacosta Company, Wire and Cable Division
 Commercial Shearing, Incorporated
 Dick Corporation
 Dow Corning Corporation
 Essex Group, Incorporated
 Fort Pitt Steel Casting
 The Franklin Glue Company
 Halcon International, Incorporated
 Harbison-Walker Refractories
 Hill and Griffith Company
 Marathon Oil Company
 RAD Services, Incorporated
 The Refractories Institute
 Schering-Plough Corporation
 Senco Products, Incorporated
 SCM Corporation
 Stellite Division, Cabot Corporation
 Tile Council of America, Incorporated
 II-VI Incorporated
 WABCO Transportation Systems Group
 Williams and Company, Incorporated

DIF MEMBERS - 1977 Annual Report

Date Joined	Company	Date Joined	Company
1917	*Abrasive Grain Association	1956	Equitable Life Assurance Society
1976	Allegheny County Sanitary Authority	1976	Essex Group, Inc.
1936	Allegheny Ludlum Industries, Inc.	1964	Exxon Corp.
1945	*Alliance of American Insurers	1973	Falcon Foundry Co.
1956	Allied Chemical Corp.	1976	Fort Pitt Steel Casting
1936	Aluminum Co. of America	1974	Fostoria Glass Co.
1969	Aluminum Co. of Canada, Ltd.	1936	Foundry Supply Manufacturers Group
1957	AMAX, Inc.	1976	The Franklin Glue Co.
1947	American Can Co.	1970	General Cigar & Tobacco Co., Inc.
1971	American Foundrymen's Society		of Culbre Corp.
1973	American Industrial Hygiene Association	1947	General Electric Co.
1938	*American Insurance Association	1951	General Mills, Inc.
1944	American Iron & Steel Institute	1942	General Motors Corp.
1917	American Mining Congress	1974	General Refractories Co.
1967	American Petroleum Institute	1954	Georgia Kaolin Co.
1976	American Restaurant China Council, Inc.	1937	*Grinding Wheel Institute
1936	ASARCO, Inc.	1950	Gulf Oil Corp.
1969	American Textile Manufacturers Institute, Inc.	1976	Halcon International, Inc.
1976	American Welding & Manufacturing Co.	1936	Hall China Co.
1976	American Wood Preservers Institute	1977	Hankison Corp.
1976	Americhem, Inc.	1976	Harbison-Walker Refractories
1976	Anacosta Co., Wire & Cable Division	1972	Heinz U.S.A. (Div. of H. J. Heinz Co.)
1966	AKCO/Polymers, Inc.	1966	Hierro-Peru
1970	Argonaut Insurance Co.	1976	Hill & Griffith Co.
1974	BASF Wyandotte Corp.	1973	Howell Industrial Clinic
1977	Borg-Warner Chemicals	1937	Huntington Alloys, Inc.
1944	Brush Wellman, Inc.	1975	Industrial Gasket & Shim Co., Inc.
1977	Buffalo Color Corp.	1947	Inland Steel Co.
1955	CPC International, Inc.	1947	International Business Machines Corp.
1977	Campbell Soup Co.	1970	International Lead Zinc Research Organization
1971	*Cemented Carbide Producers Association	1936	Johns-Manville Corp.
1977	Central Medical Health Services	1939	Jones & Laughlin Steel Corp.
1968	CertainFeed Corp.	1955	Kawacki Beryleo Industries, Inc.
1974	Chrysler Corp.	1974	Kopp Glass, Inc.
1956	Ciba-Geigy AG	1970	Laclede Steel Co.
1971	Coh Industries Inc.	1962	Lagoven, S.A.
1972	Columbia Gas System Service Corp.	1968	Homar Laughlin China Co.
1975	Commercial Shearing, Inc.	1974	Lenox Crystal, Inc.
1956	Companhia Siderurgica Nacional	1937	J. S. McCormack Co.
197	Consolidated Edison Co. of New York, Inc.	1976	Marathon Oil Co.
1975	Consolidated Natural Gas Service Co.	1977	Metropolitan Life Insurance Co.
1977	Consolidation Coal Co., Inc.	1936	Mini Safety Appliances Co.
1977	Cummins Engine Co., Inc.	1971	Minbay Chemicals Co.
1972	Cummins Diesel Engine Corp.	1977	Monongahela Iron & Steel Co.
1976	Dow Chemical Co.	1977	Motor Cords Manufacturing Co.
1976	Dow Corning Corp.	1936	Motor Vehicle Manufacturers Assn. of U. S., Inc.
1947	Drakenfeld Division, Hercules, Inc.	1974	National Annealing Box Co.
1957	Dravo Corp.	1972	National Forge Co.
1966	Eastman Kodak Co.	1977	National Health Watch, Inc.
1936	F. I. du Pont de Nemours & Co.	1972	Organization Resources Consultants, Inc.
1973	Minerals & Chemicals Division Engelhard Minerals & Chemicals Corp.	1953	Owens-Corning Fiberglas Corp.
1975	Five Metals Corp.	1947	PPG Industries, Inc.
		1937	Pennsylvania Glass Sand Corp.

*Multiple Membership

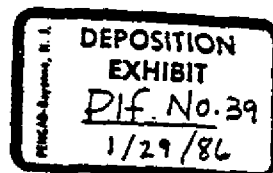
DMF MEMBERS (continued)

<u>Date Joined</u>	<u>Company</u>	<u>Date Joined</u>	<u>Company</u>
1972	Peoples Natural Gas Co.	1976	Stellite Division, Cabot Corp.
1975	Pittsburgh & Lake Erie Railroad	1969	Tenneco, Inc.
1970	Pneumafil Corp.	1966	Thermal Insulation Manufacturers Assn.
1938	Portland Cement Association	1976	Tile Council of America, Inc.
1970	Potters Industries, Inc.	1970	Travelers Insurance Companies
1973	Pullman-Standard	1972	Tri-State Engineering Co.
1977	Quaker State Oil Refining Corp.	1976	II-VI Inc.
1976	RAD Services, Inc.	1936	Union Carbide Corp.
1968	Raybestos-Manhattan, Inc.	1974	United States Gypsum Co.
1976	The Refractories Institute	1970	U. S. Minerals Products Co.
1937	H. H. Robertson Co.	1936	U. S. Potters Association
1976	SCM Corp.	1936	United States Steel Corp.
1972	Safety First Industries, Inc.	1960	Van Stratten Chemical Co.
1973	The Sager Glove Corp.	1972	Vesuvius Crucible Co.
1937	St. Joe Minerals Corp.	1977	Volkswagen Mfg. Corp. of America
1937	Sauereisen Cements Co.	1976	WABCO Railway Products Group
1977	Schuylkill Metals Corp.	1975	Washington Mould, Machine & Foundry Co.
1956	Seattle Services Div., The Boeing Co.	1974	Watson-Standard Co.
1976	Seaco Products, Inc.	1937	Wedron Silica Div., Mobile Beach Corp.
1974	Sharon Steel Corp.	1977	Wendel File Co.
1972	Shell Oil Co.	1962	Western Electric Co., Inc.
1974	Shenango Inc.	1937	Westinghouse Electric Corp.
1956	Soap & Detergent Association	1977	Whirlpool Corp.
1977	Spartek, Inc.	1976	Williams & Co., Inc.
1975	The Standard Oil Co.	1975	Young Galvanizing, Inc.
1937	Stauffer Chemical Co.		

NEW MEMBERS — 1977

Borg-Warner Chemicals
Buffalo Color Corp.
Campbell Soup Co.
Central Medical Health Services
John D. Copanos Co., Inc.
Hankison Corp.
Motor Coils Manufacturing Co.
National Health Watch, Inc.
Quaker State Oil Refining Corp.
Schuylkill Metals Corp.
Spartek, Inc.
Volkswagen Manufacturing Corp. of America
Wendel File Co.
Whirlpool Corp.

IHF MEMBERS - 1978 Annual Report



<u>Date</u> <u>Joined</u>	<u>Company</u>
1937	*Abrasive Grain Association
1978	Alberta Dept. of Labour
1976	Allegheny County Sanitary Authority
1936	Allegheny Ludlum Industries, Inc.
1945	*Alliance of American Insurers
1956	Allied Chemical Corp.
1936	Aluminum Co. of America
1969	Aluminum Co. of Canada
1957	AMAX, Inc.
1947	American Can Co.
1971	American Foundrymen's Society
1973	American Industrial Hygiene Association
1938	*American Insurance Association
1944	American Iron & Steel Institute
1937	American Mining Congress
1967	American Petroleum Institute
1976	American Restaurant China Council, Inc.
1969	American Textile Mfrs. Institute, Inc.
1976	American Welding & Manufacturing Co.
1976	American Wood Preservers Institute
1976	Americhem Inc.
1976	Anasconda Co., Wire & Cable Div.
1966	AECO/Polymers, Inc.
1970	Argonaut Insurance Co.
1936	ASARCO, Inc.
1977	Borg-Warner Chemicals
1944	Brush Wellman, Inc.
1977	Buffalo Color Corp.
1977	Campbell Soup Co.
1971	*Cemented Carbide Producers Assn.
1977	Central Medical Health Services
1968	CertainTeed Corp.
1974	Chrysler Corp.
1958	Ciba-Geigy AG
1974	Cult Industries Inc.
1972	Columbia Gas System Service Corp.
1978	Columbia Nitrogen Corp.
1975	Commercial Shearing, Inc.
1958	Companhia Siderurgica Nacional
1973	Consolidated Edison Co. of New York, Inc.
1972	Consolidated Natural Gas Service Co.
1975	Consolidation Coal Co., Inc.
1977	John D. Copanos Co., Inc.
1978	D'Appolonia Consulting Engineers, Inc.
1952	Diamond Shamrock Corp.
1976	Dick Corp.
1973	Dow Chemical U.S.A.
1976	Dow Corning Corp.
1937	Drakenfeld Div., Hercules, Inc.
1937	Dravo Corp.
1936	E. I. du Pont de Nemours & Co.
1978	Duraloy Blaw-Knox, Inc.
1973	Minerals & Chemicals Division
1977	Engelhard Minerals & Chemicals Corp.

<u>Date</u> <u>Joined</u>	<u>Company</u>
1976	Essex Group
1964	Exxon Corp.
1973	Falcon Foundry Co.
1978	Fisher Controls Co.
1976	Fort Pitt Steel Casting
1974	Fosterite Glass Co.
1936	Foundry Supply Manufacturers Group
1976	The Franklin Glue Co.
1978	General Alloy Casting Co.
1970	General Cigar & Tobacco Co.
1947	General Electric Co.
1951	General Mills, Inc.
1942	General Motors Corp.
1974	General Refractories Co.
1954	Georgia Kaolin Research
1937	*Grinding Wheel Institute
1950	Gulf Oil Corp.
1976	Halcon International, Inc.
1936	Hall China Co.
1977	Hankison Corp.
1976	Harbison-Walker Refractories
1978	Harvey Industries, Inc.
1966	Hierro-Peru
1976	Hill & Griffith Co.
1973	Howell Industrial Clinic
1937	Huntington Alloys, Inc.
1978	Huntington Plating, Inc.
1978	ICI Americas, Inc.
1978	ILCO, Inc.
1978	Imaging Systems Corp.
1975	Industrial Gasket & Shim Co.
1947	Inland Steel Co.
1947	International Business Machines Corp.
1970	International Lead Zinc Research Org.
1936	Johns-Manville Corp.
1939	Jones & Laughlin Steel Corp.
1955	Kawachi Berylico Industries, Inc.
1974	Kopp Glass, Inc.
1942	Koppers Co., Inc.
1970	Laclede Steel Co.
1962	Lagoven, S. A.
1968	Homer Laughlin China Co.
1974	Lenox Crystal, Inc.
1978	M & T Chemicals, Inc.
1937	J. S. McCormick Co.
1976	Marathon Oil Co.
1978	C. H. Masland & Sons
1937	Metropolitan Life Insurance Co.
1936	Mine Safety Appliances Co.
1974	Mobay Chemical Co.
1978	Molded Fiber Glass Tray Co.
1975	Monongahela Iron & Metal Co.
1977	Motor Coils Manufacturing Co.
1936	Motor Vehicle Man...

P-39

IHF MEMBERS (continued)

<u>Date Joined</u>	<u>Company</u>	<u>Date Joined</u>	<u>Company</u>
1977	National Health Watch, Inc.	1974	Shenango Inc.
1972	Organization Resources Counselors, Inc.	1956	Soap & Detergent Association
1953	Owens-Corning Fiberglas Corp.	1977	Spartek, Inc.
1937	Pennsylvania Glass Sand Corp.	1975	The Standard Oil Co.
1978	Pennsylvania Power Co.	1976	Stallite Div., Cabot Corp.
1972	Peoples Natural Gas Co.	1969	Tenneco Inc.
1975	Pittsburgh & Lake Erie Railroad	1966	Thermal Insulation Manufacturers Assn
1970	Pneumafil Corp.	1978	Tile Council of America, Inc.
1938	Portland Cement Association	1970	Travelers Insurance Companies
1970	Potters Industries, Inc.	1972	Tri-State Engineering Co.
1937	PPG Industries, Inc.	1976	II-VI Inc.
1973	Pullman-Standard	1936	Union Carbide Corp.
1977	Quaker State Oil Refining Corp.	1974	United States Gypsum Co.
1976	RAD Services, Inc.	1970	U. S. Mineral Products Co.
1968	Raybestos-Manhattan, Inc.	1936	U. S. Potters Association
1976	The Refractories Institute	1960	Van Straaten Chemical Co.
1937	H. H. Robertson Co.	1972	Vesuvius Crucible Co.
1978	Roux Laboratories, Inc.	1977	Volkswagen Mfg. Corp. of America
1972	Safety First Industries, Inc.	1976	WABCO Railway Products Group
1973	The Sager Glove Corp.	1975	Washington Mould, Machine & Foundry Co.
1937	St. Joe Minerals Corp.	1974	Watson-Standard Co.
1956	Sauereisen Cements Co.	1977	Wencsel Tile Co.
1977	Schuykill Metals Corp.	1962	Western Electric Co.
1976	SCM Corp.	1937	Westinghouse Electric Corp.
1956	Seattle Services Div., Boeing Co.	1977	Whirlpool Corp.
1976	Senco Products, Inc.	1976	Williams & Co.
1974	Sharon Steel Corp.	1975	Young Galvanizing, Inc.
1972	Shell Oil Co.		

NEW MEMBERS — 1978

Alberta Department of Labour
 Columbia Nitrogen Corp.
 Duraloy Blaw-Knox, Inc.
 Fisher Controls Co.
 General Alloy Casting Co.
 Harvey Industries, Inc.
 Huntington Plating, Inc.
 ILCO, Inc.
 Imaging Systems Corp.
 M & T Chemicals, Inc.
 C. H. Masland & Sons
 Molded Fiber Glass Tray Co.
 Pennsylvania Power Co.
 Roux Laboratories, Inc.

IHF MEMBERSHIP LISTS

1981 - From Acme dated Sept. 17, 1981

1980 - Complete (Annual Report)

1979 - " "

1978 - " "

1977 - " "

1976 - " "

1975 - " "

1974 - " "

1973 - " "

1972 - New members only (Minutes Board of Trustees Meetings, Feb. 8, May 9, Oct.

1971 - New members only (Minutes Board of Trustees Meetings, Mar. 9 and Oct. 11)

1970 - Complete (Annual Report)

1969 - " "

1968 - " "

1967 - " "

1966 - " "

1965 - " "

1964 - " "

1963 - Members represented by proxies, new members, members resigned.
(Meeting of Members, October 23, 1963)

1962 - New members only (Annual Report)

1961 - " " " "

1960 - No record

EX.	B
WIT.	R. Powers
DATE	5-5-82
R. POWERS RPTR.	

IHF MEMBERSHIP LISTS (Contd.)

- 1959 - Complete (Annual Report)
- 1958 - No record
- 1957 - New members only (Transactions Bulletin No. 31, 22nd Annual Meeting, October 30-31, 1957)
- 1956 - New members only (Transactions Bulletin No. 30, 21st Annual Meeting, November 14-15, 1956)
- 1955 - New members only (Transactions Bulletin No. 29, 20th Annual Meeting, November 16-17, 1955)
- 1954 - New members only (Transactions Bulletin No. 28, 19th Annual Meeting, November 17-18, 1954)
- 1953 - New members only (Transactions Bulletin No. 26, 18th Annual Meeting, November 19, 1953)
- 1952 - No record
- 1951 - New members only (Transactions Bulletin No. 19, 16th Annual Meeting, November 15, 1951)
- 1950 - New members only (Transactions Bulletin No. 15, 15th Annual Meeting, November 16, 1950)
- 1949 - New members only (Transactions Bulletin No. 11, 14th Annual Meeting, November 17, 1949)
- 1948 - New members only (Transactions Bulletin No. 10, 13th Annual Meeting, November 18, 1948)
- 1947 - New members only (Transactions Bulletin No. 9, 12th Annual Meeting, November 20, 1947)
- 1946 - Complete (Transactions Bulletin No. 8, 11th Annual Meeting, November 7, 1946)
- 1945 - Complete (Proceedings, 10th Annual Meeting, November 14-15, 1945, Part IV)
- 1944 - Complete (Proceedings, 9th Annual Meeting, November 15-16, 1944, Part IV)
- 1943 - Complete (Proceedings, 8th Annual Meeting, November 10-11, 1943)
- 1942 - New members only (Proceedings, 7th Annual Meeting, November 10-11, 1942)

IHf MEMBERSHIP LISTS (Contd.)

1941 - New members only (Proceedings, 6th Annual Meeting, November 12-13, 1941)

1940 - New members only (Proceedings, 5th Annual Meeting, November 12-13, 1940)

1939 - No record

1938 - No record

1937 - Complete (Proceedings of Special Meeting, November 30, 1937)

Trans. Bull. No. 31, 22nd Ann. Meeting,
Oct 30-31, 1957

Foundation Facts

C. RICHARD WALMER, M.D., Pittsburgh

It is indeed a pleasure to welcome all of you to this 22d Annual Meeting of Industrial Hygiene Foundation, not only because I am always happy to see so many members of the Foundation here, but because I believe this audience represents the formula for hurdling obstacles that present themselves in just about every major human endeavor. And that formula is communication—not just communication within the boundaries of our own specialties, but communication across lines, across barriers of misunderstanding that lack of information and insight can create.

We hope that the program which has been arranged for you will help to bring about a clearer understanding of the interrelationship of management, technical, and medical aspects of health maintenance.

We want at this time to welcome 11 new members to this year's meeting. They are the following:

The American Metal Co., Ltd.
The Atchison, Topeka and Santa Fe Railway System
Brazilian National Steel Company
Dick Corporation
General Foods Corporation
Ingersoll-Humphries Division of Borg-Warner Corporation
Laclede Steel Company
Minnesota Mining & Manufacturing Co.
Reaction Motors, Inc.
Research-Cottrell, Inc.
Schenck Steel Division of Armco Steel Corporation

We hope that you will consider the Foundation as part of your own technical staff, and we look forward to being of assistance to you.

During the past year the Foundation's staff completed a number of important field

and research projects. Environmental surveys were made for member companies to evaluate the degree of hazardous exposures to dust, fumes, and other atmospheric contaminants. Control measures were based upon this evaluation of the working environment. Investigations were also made of community air pollution, and stack discharges at industrial plants were measured to determine whether these were a contributing factor.

Two major epidemiological studies were carried on during the year, one to determine the health status of workers in a specific industry and whether there is a relationship between environmental exposures and certain biologic effects, and the other to investigate the biologic effects of certain chemical compounds.

Another major medical study was the survey of the medical program of one member company, a redesigning of it, and the preparation of a manual of procedures.

A number of research investigations in the Foundation's toxicological laboratory were concerned with the development of fundamental information appraising and controlling occupational disease hazards. Among long-range projects of this type is one being conducted for an association of industries to study biological factors in air pollution. Another is a research project to study potential hazards of a new product, and includes pulmonary, gastrointestinal, and eye-irritation studies. Findings serve as a basis for evolving proper control measures to protect the health of workers and consumers.

These are just the highlights of the work carried on this year. There were many other projects of a lesser magnitude but equally

given specific information on their dust problem wrote and thanked us for this assistance and stated "Your advice and references have 'cleared the air' enabling us to face our atmospheric pollution with something more than doubt and suspicion."

A second training course for industrial hygiene engineers and chemists was conducted in cooperation with the Occupational Health Research Training Facility of the U. S. Public Health Service. An intensive two weeks was devoted to work in the laboratory and lectures. The response of those taking the course is evidence of the benefits to be derived from this activity and it is planned to repeat the course in 1962. A two-day seminar on the current aspects of the dust problem was conducted under the sponsorship of the National Industrial Sand Association and the Foundry Facing Manufacturers Association. This provided an opportunity for the members of these associations to obtain up-to-date information on the medical, engineering and legal aspects of problems associated with their operations.

The Foundation provides an opportunity for representatives of industry to come together as working groups to explore and better define what they are doing and to take leadership in planning and developing policies to anticipate and prepare for new problems which we must face in the future. The real strength of the Foundation is in the unified action of its members.

On behalf of the staff, I wish to express our deep appreciation for the helpful and encouraging support and the valuable contributions of the Board of Trustees and its Executive Committee, the Technical Committees, and the executive staff of Mellon Institute.

NEW MEMBERS - 1961

American Viscose Corporation
Armco Steel Corporation
Butler County Mushroom Farm, Inc.
The Cooper-Bessemer Corporation
Davison Chemical Division
W. R. Grace & Company
Ferro-Glo Corporation
Hanley Company
Hughson Chemical Company
Powdered Products Company
Westinghouse Brake & Signal, Ltd.
West Virginia Pulp and Paper Company

(197)

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

NEW MEMBERS AND MEMBERS RESIGNED

January 1 - September 30, 1963

New Members

Comalco Aluminium, Ltd.	\$ 75.00	
Freeport Division, Nalco Chemical Co.	75.00	
Marbon Chemical Div., Borg Warner Corp.	175.00	
Pipe Fabrication Institute	75.00	
Stiffler Industrial Lubricants Co.	<u>75.00</u>	\$ 475.00

Members Increasing Dues

Ethyl Corporation (from \$100 to \$350)	<u>250.00</u>
	725.00

Members Resigned

Association of American Railroads	\$ 50.00	
Autometric, Inc.	100.00	
Bethlehem Steel Co.	1,000.00	
Gustin-Bacon Manufacturing Co.	200.00	
Keasbey & Mattison Co.	150.00	
New Jersey Pulverizing Co.	50.00	
Shenango Furnace Co.	150.00	
Standard Ultramarine & Color Co.	150.00	
Universal Rundle Corp.	<u>100.00</u>	- <u>\$1,950.00</u>

Loss to September 30, 1963 - \$1,225.00

A third training course for industrial hygiene engineers and chemists was conducted in cooperation with the Occupational Health Research and Training Facility of the United States Public Health Service. A concentrated two weeks was devoted to work in the laboratory, lectures and homework assignments. The response was again most satisfying and the course will be repeated in 1963.

On behalf of the staff, I wish to express our deep appreciation for the helpful and encouraging support and the valuable contributions of the Board of Trustees and its Executive Committee, the Technical Committees, and the executive staff of Mellon Institute.

NEW MEMBERS - 1962

E. I. du Pont de Nemours & Company

International Research and Development Corporation

Louisiana Ordnance Plant of Remington Rand
Division, Sperry Rand Corporation

Netherlands du Pont (foreign)

Semiconductor Products Division of Motorola, Inc.

Stauffer Chemical Company

Tamms Industries Company

Western Electric Company

Member companies represented by proxies:

Abrasive Grain Association
Allegheny Pittsburgh Coal Company
Aluminum Company of America
American Air Filter Company, Inc.
American Iron and Steel Institute
American Zinc Institute
Anaconda Company
American Can Company
American Metal Climax, Inc.
American Smelting & Refining Company
American Viscose Div., FMC Corporation
American Zinc, Lead & Smelting Company
Armco Steel Corporation
Atlas Chemical Industries
Ball Brothers Company, Inc.
Boeing Company
Brush Beryllium Company
Butler County Mushroom Farm
Central Silica Company
Robert F. Coleman, Inc.
Cooper-Bessemer Corporation
Davison Chemical Div., W. R. Grace & Company
Deckers Creek Sand Company
Deere & Company
Dow Chemical Company
B. F. Drakenfeld & Co., Inc.
E. I. du Pont de Nemours & Company
Ebasco Services Incorporated
Electric Storage Battery Company
Equitable Life Assurance Society of the U. S.
Ethyl Corporation
Ferro Corporation
Foundry Facings Manufacturers Association
General Electric Company
General Motors Corporation
Glenshaw Glass Company
Grinding Wheel Institute
Hall China Company
Hanley Company
Hazleton Laboratories, Inc.
Hercules Powder Company
Inland Steel Company
International Business Machines Corp.
Johns-Manville Corporation
Jones & Laughlin Steel Corporation

Kaiser Refractories
Kennecott Copper Corporation
Lava Crucible-Refractories Company
Louisiana Ordnance Plant, Remington Office Equipment Div.,
Sperry Rand Corporation
Marbon Chemical Div., Borg-Warner Corporation
J. S. McCormick Company
Minneapolis-Honeywell Regulator Company
Minnesota Mining and Manufacturing Company
Jesse S. Morie & Son, Inc.
National Assoc. of Mutual Casualty Companies
National Crushed Stone Association
National Industrial Sand Association
National Slag Association
Owens-Corning Fiberglas Corporation
Owens-Illinois Glass Company
G. H. Packwood Manufacturing Company
Penn Rillton Company
Pennsylvania Manufacturers' Assoc. Casualty Insurance Co.
Phelps Dodge Corporation
Philadelphia Quartz Company
Pipe Fabrication Institute
Pittsburgh Plate Glass Company
Pittsburgh Steel Company
Portland Cement Association
Powdered Products Company
Pullman-Standard
Reaction Motors Div., Thiokol Chemical Corporation
Republic Steel Corporation
Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauereisen Cements Company
Claude B. Schneible Company
Scott Aviation Corporation
Socony Mobil Oil Company, Inc.
Stauffer Chemical Company
Sugar Beet Products Company
Tennessee Copper Company Division of Tennessee Corporation
Union Carbide Corporation
U. S. Steel Corporation
Wedron Silica Company
Westinghouse Electric Corporation
Whitehead Brothers Company

Company	Year Joined	Company
1927 Abrasive Grain Association	1961	Davison Chemical Division
1937 Abrasive Products Company		W. R. Grace & Company
1936 Acme Abrasive Company	1937	Deckers Creek Sand Company
1936 Acme Quality Paints, Inc.	1937	A. P. de Sanno & Son, Inc.
1936 Allegheny Ludlum Steel Corp.	1952	Diamond Alkali Company
1940 Allegheny Pittsburgh Coal Co.	1939	Dow Chemical Company
1936 Allied Chemical Corporation	1937	B. F. Drakenfeld & Co., Inc.
1936 Alumina Company of America	1937	Dravo Corporation
1937 American Abrasive Company	1962	E. I. duPont de Nemours & Co.
1947 American Can Company, Inc.		
1937 American Emery Wheel Works	1963	Edmar Abrasive Company
1944 American Iron and Steel Institute	1943	Electro Refractories & Abrasives Co.
1937 American Metal Glimax, Inc.	1945	Ejler Plumbingware Division
1937 American Mining Congress		The Murray Corp. of America
1944 American Optical Company	1956	Equitable Life Assurance Society
1936 American Potash & Chemical Corp.		of the United States
1936 American Smelting & Refining Co.	1937	Ethyl Corporation
1936 American Zinc Institute, Inc.	1937	Exolon Company
1937 American Zinc, Lead & Smelting Co.		
1936 Anaconda Company		
1961 Armco Steel Corporation	1949	Ferro Corporation
1936 Association of Casualty & Surety Companies	1964	FMC Corporation
1968 Atlas Chemical Industries, Inc.	1937	Foots Mineral Company
1936 Automobile Manufacturers Assn.	1947	Ford Motor Company
	1936	Foundry Facings Manufacturers Assn.
	1963	Freepoxy Division
44 Ball Brothers Company, Inc.		Nalco Chemical Company
37 Bartlett-Collins Company	1943	Fuller Merriam Company
37 Bay State Abrasive Products Co.		
53 Beryllium Corporation	1943	Gardner Machine Company
51 Bleached Board Division	1958	Geigy-Werke Schweizerhalle A. G.
West Virginia Pulp and Paper Co.	1937	General Abrasive Company, Inc.
Boeing Company	1947	General Electric Company
10 Brush Beryllium Company	1937	General Grinding Wheel Corp.
7 George H. Bullard Company, Inc.	1951	General Mills, Inc.
Bunker Hill Company	1942	General Motors Corporation
11 Butler County Mushroom Farm, Inc.	1954	Georgia Kaolin Company
	1937	Glenshaw Glass Company, Inc.
3 Can Manufacturers Institute, Inc.	1937	Grinding Wheel Institute
7 Carborundum Company	1950	Gulf Oil Corporation
2 Celanese Corp. of America	1964	Gypsum Association
7 Central Silica Company		
7 Chicago Wheel & Manufacturing Co.	1937	Hall China Company
1 Cincinnati Milling Products Division	1937	Hamilton Emery & Corundum Co.
Cincinnati Milling Machine Co.	1937	Hampden Grinding Wheel Company
6 Robert F. Coleman, Inc.	1961	Hanley Company
1 Colonial Abrasive Products Co.	1959	Hazleton Laboratories
1 Comalco Aluminum (Bell Bay) Ltd.	1956	Honeywell Inc.
1 Commonwealth Sanitation Company	1961	Hughson Chemical Company
1 Companhia Siderurgica Nacional	1937	Huntington Alloy Products Division
Consolidation Coal Company, Inc.		International Nickel Company
Continental Can Company, Inc.		
Cooper-Bessemer Corporation	1957	Ingersoll-Humphrey
Corn Products Company		Borg-Warner Cor.
Cortland Grinding Wheels Corporation	1947	Inland Steel Company
Cenovis Petroleum Corporation	1947	International Business Machines

1141st Membership (126 member companies)

1900	Jones & Laughlin Steel Corp.	1964	Pittsburgh Activated Coal Company
1953	Jowett & Rodgers Company	1937	Pittsburgh Plate Glass Company
1960	Kaiser Refractories Division	1955	Pittsburgh Steel Company
	Kaiser Aluminum & Chemical Corp.	1938	Portland Cement Association
1953	Kennecott Copper Corporation	1961	Powdered Products Company
1942	Koppers Company, Inc.	1937	Process Air Division
			American Air Filter Company
1937	Lava Crucible Refractories Co.	1950	Pullman-Standard
1964	Laversack & Haines, Inc.	1957	Reaction Motors Division
1936	Lead Industries Association		Thiokol Chemical Corporation
1958	London Transport Board	1952	Red Hill Grinding Wheel Corp.
1962	Louisiana Ordnance Plant	1945	Republic Steel Corporation
	Remington Rand Division	1937	H. H. Robertson Company
	Sperry Rand Corporation	1956	Robertson Manufacturing Company
1937	Macklin Company	1939	Safety First Supply Company
1950	Manhattan Rubber Division	1937	St. Joseph Lead Company
	Raybestos-Manhattan, Inc.	1950	Sandia Corporation
1960	Maryland Self-Insurers' and	1956	Sauerbisen Cements Company
	Employers' Compensation Assn.	1937	Claude B. Schneible Company
1937	J. S. McCormick Company	1946	Scott Aviation Corporation
1964	Merck & Co., Inc.	1937	Simonds Abrasive Company
1937	Mid-West Abrasive Company	1937	Simonds Worden White Company
1936	Mine Safety Appliances Company	1956	Soap and Detergent Association
1957	Minnesota Mining & Manufacturing Co.	1949	Sohony Mobil Oil Company, Inc.
1956	James S. Morris & Son, Inc.	1941	Standard Lime and Cement Company
1945	National Association of Mutual	1964	Standard Oil Company (New Jersey)
	Casualty Companies*	1962	Stauffer Chemical Company
1937	National Crushed Stone Assn., Inc.	1937	Sterling Grinding Wheel Company
1947	National Glass Sand Corporation	1963	Stifflet Industrial Lubricants Co.
1937	National Grinding Wheel Co., Inc.	1953	Sugar Beet Products Company
1937	National Industrial Sand Assn.	1952	Tata Industries Limited
1937	National Lead Company	1946	Taylor, Smith & Taylor Company
1964	National Ready Mixed Concrete Assn.	1946	Tennessee Copper Company
1945	National Sand and Gravel Assn., Inc.		Division of Tennessee Corp.
1938	National Slag Association	1938	Texas Gulf Sulphur Company
1947	National Steel Corporation	1937	Titan Abrasives Company
1962	Nederland duPont de Nemours, N. Y.	1960	Tome River-Cincinnati Chemical
1964	Newport Division		Corporation
	Hayden Newport Chemical Corp.	1936	Union Carbide Corporation
1963	Osborn Manufacturing Company	1936	United States Potters Association
1937	Ottawa Silica Company	1936	United States Steel Corporation
1953	Owens-Corning Fiberglass Corp.	1937	Valley Mould and Iron Corporation
1936	Owens-Illinois Glass Company	1960	Van Straaten Chemical Company
		1938	Vesuvius Crucible Company
1954	Pacific Grinding Wheel Manufacturing	1937	Waltham Grinding Wheel Company
1954	G. H. Packwood Manufacturing Co.	1937	Washington Mills Abrasive Company
1937	Perinular Grinding Wheel Division	1937	Wedron Silica Company
	Wakefield Corporation	1962	Western Electric Company, Inc.
1937	Pennsylvania Glass Sand Corp.	1937	Westfield Grinding Wheel Company
1956	Pennsylvania Manufacturers' Assn.	1961	Westinghouse Brake and Signal
	Casualty Insurance Company		Company, Limited
1964	Parkus-Elmer Corporation	1937	Westinghouse Electric Corporation
1960	Petroleo Brasileiro S. A.	1937	Whitehead Brothers Company
1936	Phelps Dodge Corporation	1937	Willson Products Division
1961	Philadelphia Quartz Company		Ray-O-Vac Company
		1937	Youngstown Sheet and Tube Company

* Multiple Membership (27 member companies)

Refractory-Refractories Company	1952	Red Hill Grinding Wheel Corporation
Clark & Haines, Inc.	1945	Republic Steel Corporation
Ships Association	1937	H. H. Robertson Company
Port Board	1956	Robertson Manufacturing Company
Ordnance Plant		
Road Division	1939	Safety First Supply Company
Hand Corporation	1937	St. Joseph Lead Company
	1950	Sandia Corporation
Company	1956	Sauereisen Cements Company
Rubber Division	1937	Claude B. Schneible Company
Stos-Manhattan, Inc.	1946	Scott Aviation Corporation
Chemists' Association	1937	Simonds Abrasive Company
Mining Company	1937	Simonds Worden White Company
Self-Insurers' and	1956	Soap and Detergent Association
Workers' Compensation Assn.	1949	Socony Mobil Oil Company, Inc.
Cormick Company	1941	Standard Lime and Cement Company
Company, Inc.	1964	Standard Oil Company (New Jersey)
Abrasive Company	1962	Stauffer Chemical Company
Laboratories, Inc.	1937	Sterling Grinding Wheel Company
Appliances Company	1963	Stuffer Industrial Lubricants Company
Mining & Manufacturing Co.	1965	Sturm, Ruger & Company, Inc.
Morris & Son, Inc.	1953	Sugar Beet Products Company
Coal Association	1952	Tata Services Limited
Crushed Stone Assn., Inc.	1946	Taylor, Smith & Taylor Company
Glass Sand Corporation	1946	Tennessee Copper Company
Grinding Wheel Company, Inc.		Division of Tennessee Corporation
Industrial Sand Assn.	1938	Texas Gulf Sulphur Company
Lead Company	1937	Titan Abrasives Company
Ready Mixed Concrete Assn.	1960	Toms River Chemical Corporation
Sand and Gravel Assn., Inc.		
Association	1936	Union Carbide Corporation
St. Corporation	1936	United States Potters Association
Font de Nemours N. V.	1936	United States Steel Corporation
Chemicals, Inc.	1937	Valley Mould and Iron Corporation
	1960	Van Straaten Chemical Company
Manufacturing Company	1938	Vesuvius Crucible Company
Silica Company		
Fiberglass Corp.	1937	Waltham Grinding Wheel Company
Glass Company	1937	Washington Mills Abrasive Company
	1937	Wedron Silica Company
Grinding Wheel Manufacturing	1962	Western Electric Company, Inc.
Wood Manufacturing Co.	1937	Westfield Grinding Wheel Company
Grinding Wheel Division	1961	Westinghouse Brake and Signal Co., Ltd.
Id Corporation	1937	Westinghouse Electric Corporation
Glass Sand Corporation	1937	Willson Products Division
Manufacturers' Assn.		Ray-O-Vac Company
Insurance Company		
ner Corporation	1937	Youngstown Sheet and Tube Company
Brasileiro S. A.		
ge Corporation		
Quartz Company		
Activated Carbon Company		
Plate Glass Company		
Steel Company		
ement Association		
Products Company		
Division		
Filter Company		
ed		
Division		
Chemical Corporation		

MEMBERS OF INDUSTRIAL HYGIENE FOUNDATION

—A—

Abingdon Potteries, Inc.
Abrasive Grain Association
Abrasive Products Company
Acme Abrasive Company
Aerovent Fan Company, Inc.
Allegheny Ludlum Steel Corporation
Allegheny Pittsburgh Coal Company
Allied Chemical Corporation
Allis-Chalmers Manufacturing Company
Aluminum Company of America
American Abrasive Company
American Air Filter Company, Inc.
American Brake Shoe Company
American Can Company
American Emery Wheel Works
American Iron and Steel Institute
American Metal Climax, Inc.
American Mining Congress
American Optical Company
American Smelting & Refining Company
American Zinc Institute, Inc.
American Zinc, Lead & Smelting Company
Anaconda Company
Asbestos Corporation Limited
Asn. of American Railroads
Asn. of American Soap & Glycerine Producers, Inc.
Asn. Argentina de Empresarios Mineros
Asn. of Casualty & Surety Companies
Atchison, Topeka and Santa Fe Railway System
Automobile Manufacturers Association

—B—

Ball Brothers Company
Bartlett-Collins Company
Baugh and Sons Company
Bay State Abrasive Products Company
Beryllium Corporation
Bethlehem Steel Company, Inc.
Bird & Son, Inc.
Bituminous Casualty Corporation
Boeing Airplane Company
Brush Beryllium Company
George H. Bullard Company
Bunker Hill Company

—C—

Can Manufacturers Institute, Inc.
Carborundum Company
Catalytic Combustion Corporation
Celanese Corporation of America
Central Silica Company
Chicago Wheel & Manufacturing Company
Cincinnati Milling Products
Cleveland Graphite Bronze Company
Robert F. Coleman, Inc.
Colonial Abrasive Products Company
Commonwealth Sanitation Company
Companhia Siderurgica Nacional
Consolidation Coal Company, Inc.
Continental Can Company, Inc.
Copperweld Steel Company
Corn Products Company
Cortland Grinding Wheels Corporation

—D—

Deckers Creek Sand Company
Deere & Company
A. P. de Sanno & Son, Inc.
Diamond Alkali Company
Dow Chemical Company
B. F. Drakenfeld & Company, Inc.
Dravo Corporation

—E—

Eagle-Picher Company
Ebasco Services, Inc.
Electric Storage Battery Company
Electro Refractories & Abrasives Corporation
Eljer Company
Equitable Life Assurance Society of the U.S.
Esso Research and Engineering Company
Ethyl Corporation
Exolon Company

—F—

Falk Corporation
Farrell-Chek Steel Company
Ferro Corporation
Foote Mineral Company
Ford Motor Company
Fosteria Glass Company
Foundry Facings Manufacturers Association
Fuller Merriam Company

• Multiple Membership (147 member companies)

MEMBERS (continued)

—G—

Gardner Machine Company
Geigy-Werke Schweizerhalle A. G.
General Abrasive Company, Inc.
General Ceramics Corporation
General Electric Company
General Grinding Wheel Corporation
General Mills, Inc.
General Motors Corporation
General Refractories Company
Georgia Kaolin Company
Glenshaw Glass Company, Inc.
W. R. Grace & Company
Grinding Wheel Institute
Gulf Oil Corporation

—H—

Hall China Company
Hamilton Emery & Corundum Company
Hampden Grinding Wheel Company
Hazleton Laboratories
Hercules Powder Company
Homestake Mining Company

—I—

Ingersoll-Humphries
Inland Steel Company
International Business Machines Corp.
International Nickel Company

—J—

Jehrs-Manville Corporation

—K—

Keasbey & Mattison Company
Kennecott Copper Corporation
Keystone Abrasive Wheel Company
Kirk & Blum Manufacturing Company
Koppers Company, Inc.

—L—

Homer Laughlin China Company
Lava Crucible-Refractories Company
E. J. Lavino and Company
Lead Industries Association
London Transport Executive

—M—

Macklin Company
Manhattan Rubber
Maryland Self-Insurers' Association
J. S. McCormick Company
Mexico Refractories
Mid-West Abrasive Company
Mine Safety Appliances Company
Minneapolis-Honeywell Regulator Company
Minnesota Mining & Manufacturing Company
Jesse S. Moris & Son, Inc.

—N—

National Assn. of Mutual Casualty Cos.
National Crushed Stone Association, Inc.
National Glass Sand Corporation
National Grinding Wheel Company, Inc.
National Industrial Sand Association
National Lead Company
National Sand & Gravel Association, Inc.
National Slag Association
National Steel Corporation
Neville Chemical Company
New Jersey Pulverizing Company

—O—

Ottawa Silica Company
Owens-Corning Fiberglas Corporation
Owens-Illinois Glass Company

—P—

Pacific Grinding Wheel Manufacturing Co.
G. H. Packwood Manufacturing Company
Pangborn Corporation
Peninsular Grinding Wheel
Penn-Rillion Company
Pennsylvania Glass Sand Corporation
Pennsylvania Manufacturers' Association
Casualty Insurance Company
Phelps Dodge Corporation
Philadelphia Quartz Company
Phillips Petroleum Company
Pittsburgh Coke & Chemical Company
Pittsburgh Plate Glass Company
Pittsburgh Steel Company
Portland Cement Association
Pullman Incorporated Foundation

Multiple Membership (24 member companies)

MEMBERS (continued)

—R—

Reaction Motors
ed Hill Grinding Wheel Corporation
Republic Steel Corporation
Research-Cottrell, Inc.
H. H. Robertson Company
Robertson Manufacturing Company
Rome Cable Corporation

—S—

Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauerstein Cements Company
Claude B. Schneible Company
Scott Aviation Corporation
Sharon Steel Corporation
Sheffield Steel
Shenango Furnace Company
Simonds Abrasive Company
Simonds Worden White Company
Socony Mobil Oil Company, Inc.
Standard Lime and Cement Company
Standard Oil Company of California
Standard Ultramarine and Color Company
ing Grinding Wheel Company
s. r Beet Products Company

—T—

Tata Industries Limited
Taylor, Smith & Taylor Company
Tennessee Copper Company
Texas Gulf Sulphur Company
Titan Abrasives Company
Trenton Potteries Company
Trilon, Inc.
Tusco Corporation

—U—

Union Carbide Corporation
United States Pottery Association
United States Rubber Company
United States Steel Corporation
Universal-Rundle Corporation

—V—

Valley Mould & Iron Corporation
Vesuvius Crucible Company
Vitrified Wheel Company

—W—

Waltham Grinding Wheel Company
Washington Mills Abrasive Company
Wedron Silica Company
Western Maryland Railway Company
Westfield Grinding Wheel Company
Westinghouse Air Brake Company
Westinghouse Electric Corporation
Wheelabrator Corporation
Whitehead Brothers Company
Willson Products
Wyckoff Steel Company

—Y—

Youngstown Sheet and Tube Company

1966 Annual Report

Abrasive Grain Association
 Abrasive Products Company
 Acme Abrasive Company
 Air Pro-Tester Company
 Alcolac Chemical Corporation
 Allegheny Ludlum Steel Corporation
 Allegheny Pittsburgh Coal Company
 Allied Chemical Corporation
 Aluminum Company of America
 American Abrasive Company
 American Can Company
 American Emery Wheel Works
 *American Insurance Association
 American Iron and Steel Institute
 American Metal Climax, Inc.
 American Mining Congress
 *American Mutual Insurance Alliance
 American Optical Company
 American Piston & Chemical Corp.
 American Smelting & Refining Co.
 American Zinc Company
 American Zinc Institute, Inc.
 Anacunda Company
 Arctic Steel Corporation
 Armstrong Paint & Varnish Works, Inc.
 Asbestos Textile Institute
 Atlas Chemical Industries, Inc.
 Automobile Manufacturers Association, Inc.
 *Frank Leacock Company, Inc.
 Bartlett Collins Company
 Bay State Abrasive Products Company
 Berthelme Corporation
 Blackstone Machine Company
 Boring Company
 Buffalo Abrasive, Inc.
 *George F. Bullard Company, Inc.
 Bunker Hill Company
 Bunker Hill Aluminum Farm, Inc.
 *Carnegie Institute, Inc.
 *Cathlamet Company
 *Celvaco Corporation
 Central Sales Company
 Chicago Wheel & Manufacturing Co.
 *Clayco Corporation
 *Crescent Milling Machine Company
 *Crescent Milling Products Division
 *Crescent Company, Inc.
 *Crescent Products Company
 *Crescent Steel (Holdings) Limited
 *Crescent Steel National
 *Crescent Steel Company, Inc.
 *Crescent Steel Division, Inc.
 *Crescent Steel Division
 *Crescent Steel Division Corporation
 *Crescent Steel Division Corporation

A. P. deStanno & Son, Inc.
 Diamond Alkali Company
 Dow Chemical Company
 Dravo Corporation
 E. I. du Pont de Nemours & Company
 Eastman Kodak Company
 Edmar Abrasive Company
 Electric Storage Battery Company
 Willson Products Division
 Electro Refractories & Abrasives Corp.
 Equitable Life Assurance Society of the U.S.
 Ethyl Corporation
 Exolon Company

Ferro Corporation
 FMC Corporation
 Foote Mineral Company
 Ford Motor Company
 Foundry Facing Manufacturers Assn.
 Fuller Merriam Company

Gardner Machine Company
 Gmgy-Werke Schweizerhalle A.G.
 General Abrasive Company, Inc.
 General Electric Company
 General Grinding Wheel Corporation
 General Mills, Inc.
 General Motors Corporation
 Georgia Kaolin Company
 Glenshaw Glass Company, Inc.
 M. J. Gordon Company
 Grinding Wheel Institute
 Gulf Oil Corporation
 Gypsum Association

Hall China Company
 Hamilton Emery & Corundum Company
 Hampden Grinding Wheel Company
 Hartford Occupational Health Foundation
 Hanson Company
 Hazleton Laboratories
 Hercules, Inc.
 Drakenfeld Division
 Hughson Chemical Company

Inland Steel Company
 International Business Machines Corp.
 International Nickel Company
 Huntington Alloy Products Division

Johns-Manville Corporation
 Jones & Laughlin Steel Corporation
 Jowett & Rodgers Company

Kaiser Aluminum & Chemical Corp.
 Kaiser Refractories Division

* Multiple Membership

Kennecott Copper Corporation
 Keystone Brass Works, Inc.
 Koppers Company, Inc.

Laundry & Cleaners Allied Trades Assn.
 Laverack & Haines, Inc.
 Lead Industries Association
 London Transport Board

Macklin Company
 Manufacturing Chemists Assn., Inc.
 Marcona Mining Company
 Maryland Self-Ins. & Empl. Comp. Assn.
 J. S. McCormick Company
 Merck and Company, Inc.
 Metropolitan Life Insurance Company
 Mid-West Abrasive Company
 Miles Laboratories, Inc.
 Mine Safety Appliances Company
 Minnesota Mining & Manufacturing Co.
 Mobil Oil Corporation
 Jesse S. Morris & Son, Inc.

Nalco Chemical Company
 Freeport Division
 National Coal Association
 National Crushed Stone Association, Inc.
 National Glass Sand Corporation
 National Grinding Wheel Company, Inc.
 National Industrial Sand Association
 National Insulation Manufacturers Assn.
 National Lead Company
 National Sand & Gravel Association, Inc.
 National Slag Association
 Nederland du Pont de Nemours N. V.

Osborn Manufacturing Company
 Ottawa Silica Company
 Owens-Corning Fiberglas Corporation
 Owens-Illinois Glass Company

Pacific Grinding Wheel Manufacturing Co.
 G. H. Packwood Manufacturing Company
 Pennsylvania Glass Sand Corporation
 Pennsylvania Mfrs' Assn. Inc. Co.
 Perkin-Elmer Corporation
 Petroleo Brasileiro S. A.
 Philadelphia Quartz Company
 Pittsburgh Activated Carbon Company
 Pittsburgh Plate Glass Company
 Pittsburgh Steel Company
 H. K. Porter Company, Inc.
 Simonds Worden White Works
 Portland Cement Association

Raybestos-Manhattan, Inc.
 Manhattan Rubber Division
 Red Hill Grinding Wheel Corporation
 Republic Steel Corporation
 H. H. Robertson Company
 Robertson Manufacturing Company

Safety First Supply Company
 St. Joseph Lead Company
 Sandia Corporation
 Sauers-John Cements Company
 Simonds Abrasive Company
 Sinclair-Koppers Company
 Soap and Detergent Association
 Sperry Rand Corporation
 Louisiana Army Ammunition Plant
 Standard Oil Company (New Jersey)
 Stauffer Chemical Company
 Sterling Grinding Wheel Company
 Sturm, Ruger & Company, Inc.
 Sugar Beet Products Company

Tata Services Limited
 Tennessee Copper Company
 Texas Gulf Sulphur Company
 Thokol Chemical Corporation
 Reaction Motors Division
 Titen Abrasives Company
 Toms River Chemical Corporation

Union Carbide Corporation
 United States Pottery Association
 United States Steel Corporation

Valley Mould and Iron Corporation
 Van Straaten Chemical Company
 Vesuvius Crucible Company

Wakefield Corporation
 Peninsular Grinding Wheel Division
 Waltham Grinding Wheel Company
 Washington Mills Abrasive Company
 Wedron Silica Company
 Western Electric Company, Inc.
 Westfield Grinding Wheel Company
 Westinghouse Brake and Signal Company, Ltd.
 Westinghouse Electric Corporation
 West Virginia Pulp and Paper Company
 Bleached Board Division

I H F MEMBERS

- Abrasive Grain Association
- Abrasive Products Company
- Acme Abrasive Company
- ... Air Preheater Company
- Alcolac Chemical Corporation
- Allegheny Ludlum Steel Corporation
- Allegheny Pittsburgh Coal Company
- Allied Chemical Corporation
- Aluminum Company of America
- American Abrasive Company
- American Can Company
- American Emery Wheel Works
- American Insurance Association
- American Iron and Steel Institute
- American Metal Climax, Inc.
- American Mining Congress
- American Mutual Insurance Alliance
- American Optical Company
- American Petroleum Institute
- American Potash & Chemical Corp.
- American Smelting & Refining Co.
- American Welding & Manufacturing Co.
- American Zinc Company
- American Zinc Institute, Inc.
- Anaxonda Company
- Arnico Steel Corporation
- Armstrong Paint & Varnish Works, Inc.
- Asbestos Textile Institute
- Atlas Chemical Industries, Inc.
- Automobile Manufacturers Association, Inc.
- Avco Bay State Abrasives Division

- Frank Bancroft Company, Inc.
- Beryllium Corporation
- Blanchard Machine Company
- Boeing Company
- Brush Beryllium Company
- Buckeye Abrasive, Inc.
- George H. Bullard Company
- Bunker Hill Company
- Butler County Mushroom Farm, Inc.

- Calgon Corporation
- Packwood Manufacturing Co.
- Pittsburgh Activated Carbon Co.
- Can Manufacturers Institute, Inc.
- Carborundum Company
- Colanese Corporation
- Central Silica Company
- Chaves Dental Instrument Corp.
- Chicago Wheel & Manufacturing Co.
- Chrysler Corporation
- Cincinnati Milling Machine Co.
- Cincinnati Milling Products Division
- Robert F. Coleman, Inc.
- Colonial Abrasive Products Co.
- Comarco Aluminum (Bell Bay) Limited
- Companhia Siderurgica Nacional

- Consolidation Coal Company, Inc.
- Continental Can Company, Inc.
- Corn Products Company
- Cortland Grinding Wheels Corporation
- Creole Petroleum Corporation

- A. P. deSanno & Son, Inc.
- Diamond Alkali Company
- Dow Chemical Company
- Dravo Corporation
- E. I. du Pont de Nemours & Company

- Eastman Kodak Company
- Edmar Abrasive Company
- Electric Storage Battery Company
- Willson Products Division
- Electro Refractories & Abrasives Corp.
- Equitable Life Assurance Society of the U. S.
- Ethyl Corporation
- Exolon Company

- Ferro Corporation
- FMC Corporation
- FMR Corporation
- Foots Mineral Company
- Ford Motor Company
- Foundry Facing Manufacturers Group

- Gardner Machine Company
- Geigy-Werke Schweiherhalle A. G.
- General Abrasive Company, Inc.
- General Electric Company
- General Grinding Wheel Corporation
- General Mills, Inc.
- General Motors Corporation
- Georgia Kaolin Company
- Glenshaw Glass Company, Inc.
- Goodyear Tire & Rubber Company
- Grinding Wheel Institute
- Gulf Oil Corporation
- Gypsum Association

- Hall China Company
- Hamilton Emery & Corundum Company
- Hampden Grinding Wheel Company
- Hanford Occupational Health Foundation
- Hanson Company
- Hazleton Laboratories
- Hercules, Inc.
- Drakenfeld Division
- Hughson Chemical Company

- Inland Steel Company
- International Business Machines Corp.
- International Nickel Company, Inc.
- Huntington Alloy Products Division
- ITT Abrasive Products Company

• Multiple Membership

Johns-Manville Corporation
Jones & Laughlin Steel Corporation
Jowitt & Rodgers Company

Kasco Abrasives, Inc.
Kennecott Copper Corporation
Keystone Brass Works, Inc.
Koppers Company, Inc.

Laundry & Cleaners Allied Trades Assn.
Laverack & Haines, Inc.
Lead Industries Association
London Transport Board

Macklin Abrasives Company
Manufacturing Chemists Assn., Inc.
Marcona Mining Company
Maryland Self-Ins. & Empl. Comp. Assn.
J. S. McCormick Company
Merck and Company, Inc.
Metropolitan Life Insurance Company
Mid-West Abrasive Company
Miles Laboratories, Inc.
Mine Safety Appliances Company
Mobil Oil Corporation
Jesse S. Morie & Son, Inc.

Naico Chemical Company
Freeport Division
National Coal Association
National Crushed Stone Association, Inc.
National Glass Sand Corporation
National Grinding Wheel Company, Inc.
National Industrial Sand Association
National Insulation Manufacturers Assn.
National Lead Company
National Sand & Gravel Association, Inc.
National Slag Association
Nederland du Pont de Nemours N. Y.
Norton Company

Osborn Manufacturing Company
Ottawa Silica Company
Owens-Corning Fiberglass Corporation
Owens-Illinois, Inc.

Pacific Grinding Wheel Manufacturing Co.
Pennsylvania Glass Sand Corporation
Pennsylvania Mfrs' Assn. Inc. Co.
Perkin-Elmer Corporation
Petrobras/RPEC
Portland Cement Association
PPG Industries
Precision Grinding Wheel Co., Inc.

Raybestos-Manhattan, Inc.
Manhattan Rubber Division
Red Hill Grinding Wheel Corporation
Republic Steel Corporation
H. H. Robertson Company

Safety First Supply Company
St. Joseph Lead Company
Sandia Corporation
Sauereisen Cements Company
Sinclair-Koppers Company
Soap and Detergent Association
Sperry Rand Corporation
Louisiana Army Ammunition Plant
Standard Oil Company (Indiana)
Standard Oil Company (New Jersey)
Stauffer Chemical Company
Sturm, Ruger & Company, Inc.
Sugar Beet Products Company

Tata Services Limited
Tennessee Copper Company
Texas Gulf Sulphur Company
Thiokol Chemical Corporation
Reaction Motors Division
Toms River Chemical Corporation

Union Carbide Corporation
United States Potters Association
United States Steel Corporation

Valley Mould and Iron Corporation
Van Stratten Chemical Company
Vesuvius Crucible Company

Wallace-Murray Corporation
Simonds Abrasive Division
Waltham Grinding Wheel Company
Washington Mills Abrasive Company
Wedron Silica Company
Western Electric Company, Inc.
Westfield Grinding Wheel Company
Westinghouse Air Brake Division
Westinghouse Air Brake Company
Westinghouse Brake and Signal Company, Ltd.
Westinghouse Electric Corporation
West Virginia Pulp and Paper Company
Bleached Board Division

MEMBERS — 1968

Date Joined	Company	Date Joined	Company
1937	Abrasive Grain Association	1953	Continental Can Company, Inc.
1937	Abrasive Products Company	1968	Continental Insurance Companies
1956	Acme Abrasive Company	1955	Corn Products Company
1965	The Air Preheater Company	1937	Cortland Grinding Wheels Corp.
1936	Allegheny Ludlum Steel Corp.	1962	Croole Petroleum Corporation
1940	Allegheny Pittsburgh Coal Co.		
1936	Aluminum Company of America	1937	A. P. deSanno & Son, Inc.
1969	*Aluminum Co. of Canada (Alcan)	1952	Diamond Shamrock Corporation
1937	American Abrasive Company	1968	DL Skin Care Products, Inc.
1947	American Can Company, Inc.	1939	Dow Chemical Company
1937	American Emery Wheel Works	1937	Dravo Corporation
1938	*American Insurance Association	1962	E. I. du Pont de Nemours & Co.
1944	American Iron and Steel Institute		
1957	American Metal Climax, Inc.	1966	Eastman Kodak Company
1937	American Mining Congress	1963	Edmar Abrasive Company
1945	*American Mutual Insurance Alliance	1943	Electro Refractories & Abrasives Corp.
1944	American Optical Company	1956	Equitable Life Assurance Society of the United States
1967	American Petroleum Institute		
1964	American Potash & Chemical Corp.	1937	Ethyl Corporation
1936	American Smelting & Refining Co.	1937	Exolon Company
1967	American Welding & Manufacturing Co.		
1937	American Zinc Company	1949	Ferro Corporation
1936	Anaconda Company	1964	FMC Corporation
1961	Armco Steel Corporation	1967	FMR Corporation
1965	Armstrong Paint & Varnish Works, Inc.	1937	Foots Mineral Company
1966	Asbestos Textile Institute	1947	Ford Motor Company
1947	Atlas Chemical Industries, Inc.	1936	Foundry Facing Manufacturers Assn.
1968	Auto-Flo Company	1969	**Frantz, McConnell & Seymour
1936	Automobile Manufacturers Assn.		
1937	Avco Bay State Abrasives Division	1943	Gardner Machine Company
		1958	Geigy-Werke Schweizerhalle A. G.
1965	Frank Bancroft Company, Inc.	1937	General Abrasive Company, Inc.
1955	Beryllium Corporation	1947	General Electric Company
1968	Bituminous Coal Operators' Assn.	1937	General Grinding Wheel Corp.
1967	Blanchard Machine Company	1951	General Mills, Inc.
1956	The Boeing Company	1942	General Motors Corporation
1944	Brush Beryllium Company	1954	Georgia Kaolin Company
1967	Buckeye Abrasive, Inc.	1968	Glass Container Manufacturers Institute, Inc.
1952	George H. Bullard Company, Inc.		
1936	Bunker Hill Company	1937	Glenshaw Glass Company, Inc.
1961	Butler County Mushroom Farm, Inc.	1967	Goodyear Tire & Rubber Company
		1937	Grinding Wheel Institute
1953	Can Manufacturers Institute, Inc.	1950	Gulf Oil Corporation
1937	Carborundum Company		
1952	Celanese Corporation	1936	Hall China Company
1937	Central Silica Company	1937	Hamilton Emery & Corundum Company
1968	Certain-feed Products Corporation Gustin-Bacon Division	1937	Hampden Grinding Wheel Company
1967	Chayes Dental Instrument Company	1966	Hanford Occupational Health Foundation
1937	Chicago Wheel & Manufacturing Co.	1967	Hanson Company
1966	Chrysler Corporation	1959	Hazleton Laboratories
1954	Cincinnati Milling Machine Co. Cincinnati Milling Products Div.	1937	Hercules, Inc. Drakenfield Division
1944	Robert F. Coleman, Inc.		
1961	Colonial Abrasive Products Co.	1947	Inland Steel Company
1963	Cornalco Aluminum (Bell Bay) Ltd.	1947	International Business Machines Corp.
1958	Companhia Siderurgica Nacional	1966	International Nickel Company, Inc.
1936	Consolidation Coal Company, Inc.		Huntington Alloy Products Division

*Multiple membership

**January 1, 1969 member

Date Joined	Company	Date Joined	Company
1967	ITT Abrasive Products Co.	1967	Precision Grinding Wheel Company, Inc.
1936	Johns-Manville Corporation	1968	Raybestos-Manhattan, Inc.
1936	Jones & Laughlin Steel Corp.		Manhattan Rubber Division
1963	Jowitt & Rodgers Company	1952	Red Hill Grinding Wheel Corporation
		1937	H. H. Robertson Company
1967	Kasco Abrasives, Inc.		
1953	Kennecott Copper Corporation	1937	St. Joseph Lead Company
1965	Keystone Brass Works, Inc.	1956	Sauereisen Cements Company
1962	Koppers Company, Inc.	1966	Sinclair-Koppers Company
		1956	Soap and Detergent Association
1968	Homer Laughlin China Company	1962	Sperry Rand Corporation
1966	Laundry and Cleaners Allied Trades Association		Louisiana Army Ammunition Plant
1964	Leverack & Haines, Inc.	1968	Sprayed Mineral Fiber Manufacturers Association, Inc.
1936	Lead Industries Association	1967	Standard Oil Company (Indiana)
1958	London Transport Board	1964	Standard Oil Company (New Jersey)
1961	Lord Corporation	1965	Sturm, Ruger & Company, Inc.
	Hugheon Chemical Co. Div.	1953	Sugar Beet Products Company
		1968	Systemed Corporation
1937	J. S. McCormick Company		
1937	Macklin Company	1945	Tata Services Limited
1966	Manufacturing Chemists' Assn.	1946	Tennessee Copper Company
1966	Marcona Mining Company		Div. of Tennessee Corporation
1949	Metropolitan Life Insurance Co.	1938	Texas Gulf Sulphur Company
1937	Mid-West Abrasive Company	1960	Toms River Chemical Corporation
1968	Midwestern Coating Corporation		
1936	Mine Safety Appliances Company	1936	Union Carbide Corporation
1968	Mobay Chemical Company	1936	United States Potters Association
1966	Mobil Oil Corporation	1936	United States Steel Corporation
1956	Jesse S. Morie & Son, Inc.		
		1937	Valley Mould and Iron Corporation
1963	Nalco Chemical Company	1960	Van Straaten Chemical Company
	Freeport Division	1938	Vesuvius Crucible Company
1966	National Coal Association		
1937	National Crushed Stone Assn., Inc.	1967	Wallace-Murray Corporation
1947	National Glass Sand Corporation		Sironda Abrasive Division
1937	National Grinding Wheel Co., Inc.	1937	Waltham Grinding Wheel Company
1937	National Industrial Sand Assn.	1937	Washington Mills Abrasive Company
1966	National Insulation Manufacturers Association	1937	Wecon Silica Company
		1962	Western Electric Company, Inc.
1937	National Lead Company	1937	Westfield Grinding Wheel Company
1945	National Sand and Gravel Assn., Inc.	1967	Westinghouse Air Brake Company
1938	National Slag Association		Westinghouse Air Brake Division
1962	Nederland duPont de Nemours N.Y.	1961	Westinghouse Brake and Signal Co., Ltd.
1967	Norton Company	1937	Westinghouse Electric Corporation
	Grinding Wheel Division	1968	Arthur C. Withrow Company
1963	Osborn Manufacturing Company	1936	Zinc Institute, Inc.
1953	Owens-Corning Fiberglass Corp.		
1936	Owens-Illinois, Inc.		
1954	Pacific Grinding Wheel Mfg. Co.		
1937	Pennsylvania Glass Sand Corporation		
1956	Pennsylvania Manufacturers' Assn. Insurance Company		
1960	Petrobras/RPBC		
1964	Pittsburgh Activated Carbon Co. Div. of Calgon Corporation		
1938	Portland Cement Association		
1937	PPG Industries		

MEMBERS - 1968

Date Joined	Company	Date Joined	Company
1937	Abrasive Grain Association	1953	Continental Can Company, Inc.
1937	Abrasive Products Company	1968	Continental Insurance Companies
1956	Acme Abrasive Company	1955	Corn Products Company
1965	The Air Preheater Company	1937	Cortland Grinding Wheels Corp.
1936	Allegheny Ludlum Steel Corp.	1962	Croole Petroleum Corporation
1940	Allegheny Pittsburgh Coal Co.		
1936	Aluminum Company of America	1937	A. P. deSanno & Son, Inc.
1969	*Aluminum Co. of Canada (Alcan)	1952	Diamond Shamrock Corporation
1937	American Abrasive Company	1968	DL Skin Care Products, Inc.
1947	American Can Company, Inc.	1939	Dow Chemical Company
1937	American Emery Wheel Works	1937	Dravo Corporation
1938	*American Insurance Association	1962	E. I. du Pont de Nemours & Co.
1944	American Iron and Steel Institute		
1957	American Metal Climax, Inc.	1966	Eastman Kodak Company
1937	American Mining Congress	1963	Edmar Abrasive Company
1945	*American Mutual Insurance Alliance	1943	Electro Refractories & Abrasives Corp.
1944	American Optical Company	1956	Equitable Life Assurance Society of the United States
1967	American Petroleum Institute		
1964	American Potash & Chemical Corp.	1937	Ethyl Corporation
1936	American Smelting & Refining Co.	1937	Exolon Company
1967	American Welding & Manufacturing Co.		
1937	American Zinc Company	1949	Ferro Corporation
1936	Anaconda Company	1964	FMC Corporation
1961	Armco Steel Corporation	1967	FMR Corporation
1965	Armstrong Paint & Varnish Works, Inc.	1937	Foote Mineral Company
1966	Asbestos Textile Institute	1947	Ford Motor Company
1947	Atlas Chemical Industries, Inc.	1936	Foundry Facings Manufacturers Assn.
1968	Auto-Flo Company	1969	**Frantz, McConnell & Seymour
1936	Automobile Manufacturers Assn.		
1937	Avco Bay State Abrasives Division	1943	Gardner Machine Company
		1958	Geigy-Werke Schweizerhalle A. G.
1965	Frank Bancroft Company, Inc.	1937	General Abrasive Company, Inc.
1955	Beryllium Corporation	1947	General Electric Company
1968	Bituminous Coal Operators' Assn.	1937	General Grinding Wheel Corp.
1967	Blanchard Machine Company	1951	General Mills, Inc.
1956	The Boeing Company	1942	General Motors Corporation
1944	Brush Beryllium Company	1954	Georgia Kaolin Company
1967	Buckeye Abrasive, Inc.	1968	Glass Container Manufacturers Institute, Inc.
1952	George H. Bullard Company, Inc.		
1936	Bunker Hill Company	1937	Glenshaw Glass Company, Inc.
1961	Butler County Mushroom Farm, Inc.	1967	Goodyear Tire & Rubber Company
		1937	Grinding Wheel Institute
1953	Can Manufacturers Institute, Inc.	1950	Gulf Oil Corporation
1937	Carborundum Company		
1952	Celanese Corporation	1936	Hall China Company
1937	Central Silica Company	1937	Hamilton Emery & Corundum Company
1968	Certain-tied Products Corporation Gustin-Bacon Division	1937	Hampden Grinding Wheel Company
1967	Chayco Dental Instrument Company	1966	Hanford Occupational Health Foundation
1937	Chicago Wheel & Manufacturing Co.	1967	Hanson Company
1966	Chrysler Corporation	1959	Hazleton Laboratories
1954	Cincinnati Milling Machine Co. Cincinnati Milling Products Div.	1937	Hercules, Inc. Drakenfield Division
1944	Robert F. Coleman, Inc.		
1951	Colonial Abrasive Products Co.	1947	Inland Steel Company
1963	Cornalco Aluminum (Bell Bay) Ltd.	1947	International Business Machines Corp.
1958	Companhia Siderurgica Nacional	1966	International Nickel Company, Inc.
1936	Consolidation Coal Company, Inc.		Huntington Alloy Products Division

*Multiple membership

**January 1, 1969 member

Date Joined	Company	Date Joined	Company
1967	ITT Abrasive Products Co.	1967	Precision Grinding Wheel Company, Inc.
1936	Johns-Manville Corporation	1968	Raybestos-Manhattan, Inc.
1936	Jones & Laughlin Steel Corp.		Manhattan Rubber Division
1963	Jowett & Rodgers Company	1952	Red Hill Grinding Wheel Corporation
		1937	H. H. Robertson Company
1967	Kasco Abrasives, Inc.		
1953	Kennecott Copper Corporation	1937	St. Joseph Lead Company
1965	Keystone Brass Works, Inc.	1956	Sauereisen Cements Company
1942	Koppers Company, Inc.	1966	Sinclair-Koppers Company
		1956	Soap and Detergent Association
1968	Homer Laughlin China Company	1962	Sperry Rand Corporation
1966	Laundry and Cleaners Allied Trades Association		Louisiana Army Ammunition Plant
1964	Laverack & Haines, Inc.	1968	Sprayed Mineral Fiber Manufacturers Association, Inc.
1936	Lead Industries Association	1967	Standard Oil Company (Indiana)
1958	London Transport Board	1964	Standard Oil Company (New Jersey)
1961	Lord Corporation	1965	Sturm, Ruger & Company, Inc.
	Hughes Chemical Co. Div.	1953	Sugar Beet Products Company
		1968	Systemad Corporation
1937	J. S. McCormick Company		
1937	Macklin Company	1945	Tata Services Limited
1966	Manufacturing Chemists' Assn.	1946	Tennessee Copper Company
1966	Marcona Mining Company		Div. of Tennessee Corporation
1949	Metropolitan Life Insurance Co.	1938	Texas Gulf Sulphur Company
1937	Mid-West Abrasive Company	1960	Toms River Chemical Corporation
1968	Midwestern Coating Corporation		
1936	Mine Safety Appliances Company	1936	Union Carbide Corporation
1968	Mobay Chemical Company	1936	United States Potters Association
1966	Mobil Oil Corporation	1936	United States Steel Corporation
1956	Jeane S. Morris & Son, Inc.		
		1937	Valley Mould and Iron Corporation
1963	Nalco Chemical Company	1960	Van Straaten Chemical Company
	Freeport Division	1938	Vesuvius Crucible Company
1966	National Coal Association		
1937	National Crushed Stone Assn., Inc.	1967	Wallace-Murray Corporation
1947	National Glass Sand Corporation		Simonds Abrasive Division
1937	National Grinding Wheel Co., Inc.	1937	Waltham Grinding Wheel Company
1937	National Industrial Sand Assn.	1937	Washington Mills Abrasive Company
1966	National Insulation Manufacturers Association	1937	Wecon Silica Company
		1962	Western Electric Company, Inc.
1937	National Lead Company	1937	Westfield Grinding Wheel Company
1945	National Sand and Gravel Assn., Inc.	1967	Westinghouse Air Brake Company
1938	National Slag Association		Westinghouse Air Brake Division
1962	Nederland duPont de Nemours N. V.	1961	Westinghouse Brake and Signal Co., Ltd.
1967	Norton Company	1937	Westinghouse Electric Corporation
	Grinding Wheel Division	1968	Arthur C. Withrow Company
1963	Osborn Manufacturing Company	1936	Zinc Institute, Inc.
1953	Owens-Corning Fiberglass Corp.		
1936	Owens-Illinois, Inc.		
1954	Pacific Grinding Wheel Mfg. Co.		
1937	Pennsylvania Glass Sand Corporation		
1956	Pennsylvania Manufacturers' Assn. Insurance Company		
1960	Petrobras/RPBC		
1964	Pittsburgh Activated Carbon Co. Div. of Calgon Corporation		
1938	Portland Cement Association		
1937	PPG Industries		

1969 Annual Report

Date Joined	Company
1937	Abrasive Grain Association
1970	Abrasive Materials Division Norton Company
1937	Abrasive Products Company
1970	Abrasives Division Bendix Corporation
1966	Acme Abrasive Company
1936	Allegheny Ludlum Steel Corp.
1966	Allied Chemical Corporation
1970	Allison Campbell Division American Chain & Cable Co., Inc.
1936	Aluminum Company of America
1966	Aluminum Co. of Canada (Alcan)
1947	American Can Company, Inc.
1937	American Emery Wheel Works
1936	American Insurance Association
1944	American Iron and Steel Institute
1967	American Metal Climax, Inc.
1937	American Mining Congress
1945	American Mutual Insurance Alliance
1944	American Optical Company
1967	American Petroleum Institute
1964	American Potash & Chemical Corp.
1936	American Smelting & Refining Co.
1969	American Standard, Inc.
1969	American Textile Mfrs. Institute
1934	Anaconda Company
1961	Armco Steel Corporation
1966	Armstrong Chemcon, Inc.
1969	Asbestos Cement Products Assn.
1966	Asbestos Textile Institute
1970	Atlantic Abrasive Corporation
1947	Atlas Chemical Industries, Inc.
1966	Auto-Flo Company Division of Masco Corporation
1936	Automobile Manufacturers Assn.
1937	Avco Bay State Abrasives Division
1970	The Bannon Company
1966	Frank Bancroft Company, Inc.
1966	Bituminous Coal Operators' Assn.
1966	The Boeing Company
1970	Borden, Inc.
1970	Brookway Glass Company, Inc.
1944	Brush Beryllium Company
1967	Buckeye Abrasive, Inc.
1962	George H. Bullard Company, Inc.
1961	Butler County Mushroom Farm, Inc.
1963	Can Manufacturers Institute, Inc.
1937	Carborundum Company
1937	Celanese Corporation
1937	Central Silica Company
1967	Chayes Abrasives Division Chayes Dental Instrument Co.
1937	Chicago Wheel & Manufacturing Co.
1934	Cincinnati Milling Products Div. Cincinnati Milling Machine Co.
1944	Robert F. Coleman, Inc.
1961	Colonial Abrasive Products Co.
1963	Comalco Aluminum (Bau Bay) Ltd.
1966	Companhia Siderurgica Nacional
1936	Consolidation Coal Company, Inc.
1953	Continental Can Company, Inc.
1966	Continental Insurance Companies Cortland Division
1937	American Abrasive Corporation
1955	CPC International
1962	Crescent Petroleum Corporation
1937	A. P. deSanno & Son, Inc.
1952	Diamond Shamrock Corporation
1966	DL Skin Care Products, Inc.
1959	Dow Chemical Corporation
1937	Dresser Division Hercules, Inc.

*Multiple membership

Date Joined	Company
1937	Dravo Corporation
1962	E. I. du Pont de Nemours & Co.
1966	Eastman Kodak Company
1963	Edmar Abrasive Company
1943	Electro Refractories & Abrasives Division of Ferro Corporation
1969	Environmental Sciences, Inc.
1956	Equitable Life Assurance Society of the United States
1937	Ethyl Corporation
1937	Exolon Company
1949	Ferro Corporation
1964	FMC Corporation
1967	FMR Corporation
1937	Foots Mineral Company
1947	Ford Motor Company
1969	Fortoria Glass Company
1936	Foundry Supply Manufacturers Group
1969	Frantz, McConnell & Seymour
1963	Freeport Division Nalco Chemical Company
1943	Gardner Machine Company
1958	Geigy-Warke Schweizerhalle A. G.
1937	General Abrasive Company
1966	General Asbestos & Rubber Div. Raybestos-Mannhattan, Inc.
1970	General Dynamics Corporation
1947	General Electric Company
1937	General Grinding Wheel Corp.
1951	General Mills, Inc.
1942	General Motors Corporation
1954	Georgia Kaolin Company
1966	Glass Containers Mfrs. Institute, Inc.
1937	Glenshaw Glass Company, Inc.
1967	Goodyear Tire & Rubber Company
1967	Grinding Wheel Division Norton Company
1937	Grinding Wheel Institute
1950	Gulf Oil Corporation
1966	Quinn-Bacon Division Certain-teed Products Corp.
1936	Hai China Company
1937	Hamilton Division American Abrasive Corporation
1966	Hanford Environmental Health Fdn.
1967	Hanson Company
1956	Hazleton Laboratories
1961	Hughson Chemical Company Division of Lord Corporation
1937	Huntington Alloy Products Division International Nickel Co., Inc.
1947	Inland Steel Company
1947	International Business Machines Corp.
1967	ITT Abrasive Products Company
1936	Johns-Manville Corporation
1939	Jones & Laughlin Steel Corp.
1963	Jowitt & Rodgers Company
1967	Kasco Abrasives, Inc.
1955	Kaweck Berylo Industries, Inc.
1948	Kennecott Copper Corporation
1942	Koppers Company, Inc.
1970	Laclede Steel Company
1966	Homer Laughlin China Company
1964	Laverack & Haines, Inc.
1936	Lead Industries Association
1958	London Transport Board
1962	Louisiana Army Ammunition Plant Sperry Rand Corporation
1937	J. S. McCormick Company
1948	Manhattan Rubber Division Raybestos-Mannhattan, Inc.
1966	Manufacturing Chemists Assn., Inc.
1966	Marcona Mining Company
1949	Metropolitan Life Insurance Co.

Date Joined	Company
1968	Midwestern Coating Corporation
1936	Mine Safety Appliances Company
1949	Mobil Oil Corporation
1956	Jesse S. Morie & Son, Inc.
1966	National Coal Association
1937	National Crushed Stone Assn., Inc.
1969	National Forge Company
1947	National Glass Sand Corporation
1937	National Grinding Wheel Division Federal-Mogul Corporation
1937	National Industrial Sand Assn.
1966	National Insulation Mfrs. Assn.
1937	National Lead Company
1945	National Sand & Gravel Assn., Inc.
1938	National Slag Association
1962	Nederland du Pont de Nemours N. V.
1963	Osborn Manufacturing Company
1953	Owens-Corning Fiberglass Corp.
1936	Owens-Illinois, Inc.
1954	Pacific Grinding Wheel Company, Inc.
1937	Pennsylvania Glass Sand Corp.
1966	Pennsylvania Manufacturers' Assn. Insurance Company
1960	Petrobras/RPBC
1964	Pittsburgh Activated Carbon Div. Calgon Corporation
1970	Pneumatil Corporation
1938	Portland Cement Association
1937	PPG Industries
1967	Precision Grinding Wheel Co., Inc.
1952	Red Hill Grinding Wheel Corp.
1970	Rex-Cut Products Company Division of Cleveland Corp.
1937	H. M. Roberson Company
1969	Rome Division Revere Copper and Brass, Inc.
1937	St. Joseph Lead Company
1966	Sauerisen Cements Company
1967	Simonds Abrasive Division Wallace-Murray Corporation
1966	Sinclair-Koppers Company
1956	Soap and Detergent Association
1956	Sprayed Mineral Fiber Mfrs. Assn., Inc.
1964	Standard Oil Company (New Jersey)
1962	Stauffer Chemical Company
1965	Sturm, Ruger & Company, Inc.
1953	Sugar Beet Products Company
1966	Systemed Corporation
1945	Tate Services Limited
1969	Tenneco, Inc.
1946	Tennessee Copper Company Div. of Tennessee Corporation
1938	Texas Gulf Sulphur Company
1960	Toms River Chemical Corporation
1970	Travelers Insurance Companies
1936	Union Carbide Corporation
1966	United States Asbestos Division Raybestos-Mannhattan, Inc.
1936	United States Potters Association
1936	United States Steel Corporation
1960	Van Stratten Chemical Company
1938	Vesuvius Crucible Company
1937	Waltham/Hampden Grinding Wheel Co.
1937	Washington Mills Abrasive Co.
1937	Wedron Silica Company
1962	Western Electric Company, Inc.
1937	Westfield Grinding Wheel Co.
1937	Westinghouse Electric Corporation
1966	Arthur C. Withrow Company
1936	Zinc Institute, Inc.

MEMBERS

Date Joined	Company	Date Joined	Company	Date Joined	Company
1937	* Abrasive Grain Association	1937	A. P. deSanno & Son, Inc.	1970	Medical Supply Company
1970	Abrasive Materials Division Norton Company	1952	Diamond Shamrock Corporation	1970	Metal Carbides Corporation
1937	Abrasive Products Company	1939	Dow Chemical Corporation	1949	Metropolitan Life Insurance Comp.
1970	Abrasive Division Benoix Corporation	1937	Drakenfeld Division, Hercules, Inc.	1937	Michigan Abrasive Company
1936	Acme Abrasive Company	1937	Dravo Corporation		Grinding Wheel Division
1971	Adamas Carbide Corporation	1962	E. I. du Pont de Nemours & Co.	1968	Midwestern Coating Corporation
1936	Allegheny Ludlum Steel Corporation	1966	Eastman Kodak Company	1936	Mine Safety Appliances Company
1936	Allied Chemical Corporation	1963	Edmar Abrasive Company	1949	Mobil Oil Corporation
1970	Allison Campbell Division American Chain & Cable Co., Inc.	1943	Electro Refractories & Abrasives Division of Ferro Corporation	1936	Jesse S. Morse & Son, Inc.
1936	Aluminum Company of America	1969	Environmental Sciences, Inc.	1971	Multi Metals, Inc.
1969	Aluminum Company of Canada, Ltd.	1936	Equirable Life Assurance Society of the United States	1971	National Association of Manufact.
1971	American Apparel Manufacturers Assn.			1966	National Coal Association
1947	American Can Company	1937	Ethyl Corporation	1937	National Grinding Wheel Division Federal-Mogul Corporation
1938	* American Insurance Association	1937	Exolon Company	1937	National Industrial Sand Association
1944	American Iron and Steel Institute	1967	FMR Corporation	1966	National Insulation Mfrs. Association
1937	American Metal Climax, Inc.	1949	Ferro Corporation	1937	National Lead Company
1937	American Mining Congress	1971	Firth Sterling, A Teledyne Company	1938	National Slag Association
1945	* American Mutual Insurance Alliance	1937	Foots Mineral Company	1962	Nederland du Pont de Nemours & Co.
1944	American Optical Corporation	1947	Ford Motor Company	1971	Newcomer Products, Inc.
1967	American Petroleum Institute	1936	Foundry Supply Manufacturers' Group	1964	Osborn Manufacturing Company
1946	American Smelting & Refining Company	1963	Freeport Division Nalco Chemical Company	1933	Owens-Corning Fiberglass Corporation
1969	American Standard, Inc.	1943	Gardner Machine Company	1936	Owens-Illinois, Inc.
1969	American Textile Mfrs. Institute	1937	General Abrasive Company	1937	PPG Industries, Inc.
1936	Anacosta Company	1968	General Asbestos & Rubber Division Raychem-Manhattan, Inc.	1934	Pacific Grinding Wheel Company, Inc.
1970	Anso American Corp. of South Africa, Ltd.	1970	General Cigar Company	1937	Pennsylvania Glass Sand Corporation
1970	Araucario Insurance Company	1970	Gen. & A Dynamics Corporation	1970	Pneumani Corporation
1963	Asbestos Chemical, Inc.	1947	General Electric Company	1938	Portland Cement Association
1969	Asbestos Cement Products Association	1937	General Grinding Wheel Corporation	1970	Potters Brothers, Inc.
1970	Asbestospray Corporation	1931	General Mills, Inc.	1967	Precision Grinding Wheel Co., Inc.
1966	Asbestos Textile Institute	1942	General Motors Corporation	1932	Red Hill Grinding Wheel Corporation
1970	Atlantic Abrasive Corporation	1954	Georgia Kaolin Company	1970	Res-Cut Products Company
1947	Atlas Chemical Industries, Inc.	1968	Glass Containers Mfrs. Institute, Inc.		Division of Clevepak Corporation
1968	Auto-Flo Company	1937	Glenshaw Glass Company, Inc.	1937	H. H. Robertson Company
	Division of Masco Corporation	1967	Gondy Tire & Rubber Company	1971	St. Joe Minerals Corporation
1946	Automobile Manufacturers Association	1967	Grinding Wheel Division Norton Company	1971	Sandvik Steel, Inc.
1947	Avery Ray State Abrasives Division	1937	* Grinding Wheel Institute	1936	Sauerstein Cements Company
1970	The Bahson Company	1930	Gulf Oil Corporation	1971	Selenium-Tellurium Development Ass.
1963	Frank Bancroft Company, Inc.	1968	Gustin Bacon Division Certain-Ted Products Corporation	1967	Simonds Abrasive Division Wallace-Murray Corporation
1936	The Buxing Company	1936	Hall China Company	1964	Sinclair-Koppers Company
1970	Borden, Inc.	1937	Hazelnut Division American Abrasive Corporation	1936	Soap and Detergent Association
1971	Bright Boy Industrial Division Weldon Roberts Rubber Company	1966	Hanford Environmental Health Fdn.	1964	Sprayed Mineral Fiber Mfrs. Assn., Inc.
1944	Brush Beryllium Company	1967	Hanson Company	1962	Standard Oil Company (New Jersey)
1967	Buckeye Abrasive, Inc.	1937	Huntington Alloy Products Division International Nickel Company, Inc.	1963	Stauffer Chemical Company
1952	George H. Bullard Company, Inc.	1971	Hydro Carbide Corporation	1963	Strum, Ruser & Company, Inc.
1961	Butler County Mushroom Farm, Inc.	1947	Inland Steel Company	1933	Sugar Beet Products Company
1933	CPC International	1947	International Business Machines Corp.	1968	Syntex Corporation
1933	Can Manufacturers Institute, Inc.	1970	International Lead Zinc Research Org.	1959	TRW Hazleton Laboratories
1971	Carbide Division, Hawmet Corp.	1967	ITT Abrasive Products Company	1945	Tata Services Limited --
1937	Carborundum Company	1936	Johns-Manville Corporation	1969	Tenneco, Inc.
1952	Celanese Corporation	1939	Jones & Laughlin Steel Corporation	1938	Texas Gulf Sulphur Company
1971	* Cemented Carbide Producers Assn.	1963	Jowin & Rodgers Company	1960	Toms River Chemical Corporation
1947	Central Silica Company	1967	Kasco Abrasives Coleman Systems Company	1970	Travelers Insurance Companies
1967	Chaves Abrasives Division Chaves Dental Instrument Co.	1933	Kaweco Beryllio Industries, Inc.	1971	Tungsten Alloy Mfr. Co., Inc.
1934	Chilson Wheel & Manufacturing Co.	1946	Kenecor Copper Corporation	1936	Union Carbide Corporation
1934	Ciba-Geny AG.	1942	Koppers Company, Inc.	1970	United States Mineral Products Co.
1934	Cincinnati Milacron, Inc. Products Division	1970	Laclede Steel Company	1936	United States Steel Corporation
1944	Robert F. Coleman, Inc.	1968	Homer Laughlin China Company	1960	Van Straaten Chemical Company
1937	Colonial Abrasive Products Company	1964	Laverack & Haines, Inc.	1938	Vesuvius Crucible Company
1938	Companhia Siderurgica Nacional	1936	Lead Industries Association, Inc.	1971	VR/Weyson Company
1946	Convincation Coal Company, Inc.	1938	London Transport Executive	1971	Walmet Corporation
1933	Continental Can Company, Inc.	1962	Louisiana Army Ammunition Plant Sperry Rand Corporation	1937	Walsham/Hampden Grinding Wheel Co.
1968	Continental Insurance Companies	1937	J. S. McCormick Company	1937	Washington Mills Abrasive Company
1946	Coppernill Operations Div. of Cities Service Company	1946	Manhattan Rubber Division Raychem-Manhattan, Inc.	1937	Wedron Silica Company
1971	Cortland Division American Abrasive Corporation	1966	Manufacturing Chemists Association	1971	Wende-Sonis/Unimet, United Greenfield Div. of TRW, Inc.
1962	Crescent Petroleum Corporation	1966	Marcona Mining Company	1962	Western Electric Company, Inc.

* Multiple membership

* Group membership

NEW MEMBERS -- 1971

American Apparel Manufacturer's Association

American Foundrymen's Society

American Steel Foundries

Argonaut Insurance Company

Asbestospray Corporation

Cemented Carbide Products Association

Chemico Metals Corp.

General Cigar Company

International Lead Zinc Research Organization

National Association of Manufacturers

Selenium-Tellurium Development Association, Inc.

Teledyne Brown Engineering

-- from Minutes of the Board of Trustees Meetings

March 9 & October 11, 1971

NEW MEMBERS -- 1972

Buhl Optical Company .
Chicopee Manufacturing Company
Columbia Gas System Service Corporation
Consolidated Natural Gas Service Co.,
and Peoples Natural Gas Company
Industrial Bio-Test Laboratories, Inc.
Lee-Norse Company
Miles Laboratories
Organization Resources Counselors, Inc.
Safety First Industries, Inc.
Shell Oil Company
Tri-State Engineering Company

-- from Minutes of the Board of Trustees Meetings
February 8, May 9, and October 9, 1972

MEMBERS

Date Joined	Company	Date Joined	Company
1937	*Abrasive Grain Association	1952	Celanese Corporation
1936	Allegheny Ludlum Industries, Inc.	1971	*Cemented Carbide Producers Association
1956	Allied Chemical Corporation	1968	Certain-Teed Saint Gobain Insulation Corp.
1936	Aluminum Company of America	1972	Chicopee Manufacturing Company
1969	Aluminum Company of Canada, Ltd.	1958	Ciba-Geigy AG
1947	American Can Company	1972	Columbia Gas System Service Corporation
1971	American Foundrymen's Society	1958	Companhia Siderurgica Nacional
1938	*American Insurance Association	1973	Consolidated Edison Company of N.Y., Inc.
1944	American Iron and Steel Institute	1972	Consolidated Natural Gas Service Company
1957	American Metal Climax, Inc.	1936	Consolidation Coal Company, Inc.
1937	American Mining Congress	1953	Continental Can Company, Inc.
1945	*American Mutual Insurance Alliance	1962	Creole Petroleum Corporation
1944	American Optical Corporation		
1967	American Petroleum Institute	1952	Diamond Shamrock Corporation
1936	American Smelting & Refining Company	1973	Dow Chemical U.S.A.
1969	American Textile Mfrs. Institute, Inc.	1937	Drakenfeld Division Hercules, Inc.
1970	Argonaut Insurance Company	1937	Dravo Corporation, Manufacturing Group
1973	Asbestospray Corporation		
		1936	E. I. du Pont de Nemours & Company
1970	The Bahnsen Company	1966	Eastman Kodak Company
1970	Brockway Glass Company, Inc.	1973	Minerals & Chemical Division
1944	Bruah Wellman, Inc.		Engelhard Minerals and Chemical Corp.
1972	Buhl Optical Company	1973	Environmental Shields Services, Inc.
1961	Butler County Mushroom Farm, Inc.	1956	Equitable Life Assurance Society of the United States
1955	CPC International, Inc.	1964	Exxon Corporation
1953	Can Manufacturers Institute, Inc.		

*Multiple Membership

Date Joined	Company	Date Joined	Company
1973	Falcon Foundry Company	1955	Kaweckl Berylco Industries, Inc.
1949	Ferro Corporation	1973	Keystone Metal Company
1947	Ford Motor Company	1942	Koppers Company, Inc.
1936	Foundry Supply Manufacturers Group		
		1970	Laclede Steel Company
1968	General Asbestos & Rubber Division, Raybestos-Manhattan, Inc.	1968	Homer Laughlin China Company
1970	General Cigar Company, Inc.	1972	Lee-Norse Company
1947	General Electric Company	1962	Louisiana Army Ammunition Plant, Sperry Rand Corporation
1951	General Mills, Inc.		
1942	General Motors Corporation	1937	J.S. McCormick Company
1954	Georgia Kaolin Company	1966	Marcona Mining Company
1937	Glenshaw Glass Company, Inc.	1970	Marlon Health and Safety
1937	Grinding Wheel Institute	1937	Metropolitan Life Insurance Company
1950	Gulf Oil Corporation	1965	Miles Laboratories, Inc.
		1936	Mine Safety Appliances Company
1936	Hall China Company	1949	Mobil Oil Corporation
1972	Heinz U.S.A.; (Div. of H.J. Heinz Co.)	1956	Jesse S. Morfe & Son, Inc.
1973	Howell Industrial Clinic	1936	Motor Vehicle Mfrs. Assn. of U.S., Inc.
1937	Huntingdon Alloy Products Division, International Nickel Co., Inc.		
		1937	NL Industries, Inc.
		1971	National Association of Manufacturers
1947	ICI America, Inc.	1973	National Forge Company
1972	Industrial Bio-Test Laboratories, Inc.	1938	National Slag Association
1973	Ingersoll-Rand Company		
1947	Inland Steel Company	1972	Organization Resources Counselors, Inc.
1947	International Business Machines Corp.	1953	Owens-Corning Fiberglass Corporation
1970	International Lead Zinc Research Org.	1936	Owens-Illinois, Inc.
1936	Johns-Manville Corporation	1937	PPG Industries, Inc.
1939	Jones & Laughlin Steel Corporation	1937	Pennsylvania Glass Sand Corporation

1937	*Abrasive Grain Association	1937	*Grinding Wheel Institute
1936	Allegheny Ludlum Industries, Inc.	1950	Gulf Oil Corporation
1956	Allied Chemical Corporation	1936	Hall China Company
1936	Aluminum Company of America	1972	Heinz U.S.A. (Div. of H. J. Heinz Co.)
1969	Aluminum Company of Canada, Ltd.	1973	Howell Industrial Clinic
1947	American Can Company	1937	Huntington Alloys, Inc.
1971	American Foundrymen's Society	1975	Industrial Gasket & Shim Co., Inc.
1938	*American Insurance Association	1973	Ingersoll-Rand Company
1944	American Iron and Steel Institute	1947	Inland Steel Company
1957	American Metal Climax, Inc.	1947	IBM Corporation
1937	American Mining Congress	1970	International Lead Zinc Research Org.
1945	*American Mutual Insurance Alliance	1974	International Technical Information Inst.
1944	American Optical Corporation	1936	Johns-Manville Corporation
1967	American Petroleum Institute	1939	Jones & Laughlin Steel Corporation
1916	ASARCO Incorporated	1955	Kawecki Berylico Industries, Inc.
1969	American Textile Mfrs. Institute, Inc.	1974	Kopp Glass, Inc.
1966	ARCO/Polymers, Inc.	1942	Koppers Company, Inc.
1970	Argonaut Insurance Company	1970	Laclede Steel Company
1974	BASF Wyandotte Corporation	1968	Homer Laughlin China Company
1970	The Bahnsen Company	1974	Lenox Crystal, Inc.
1944	Brush Wellman, Inc.	1937	J. S. McCormick Company
1955	CPC International, Inc.	1966	Marcona Mining Company
1953	Can Manufacturers Institute, Inc.	1970	Marion Health & Safety, Inc.
1952	Celanese Corporation	1937	Metropolitan Life Insurance Company
1971	*Cemented Carbide Producers Assn.	1965	Miles Laboratories, Inc.
1968	Certain-Tec St. Gobain Insulation Corp.	1974	Milliken Brick Company
1974	Chrysler Corporation	1936	Mine Safety Appliances Company
1958	Ciba-Geigy IG	1974	Mobay Chemical Company
1974	Cult Industries Inc.	1975	Monongahela Iron & Metal Company, Inc.
1972	Columbia Gas System Service Corporation	1936	Motor Vehicle Mfrs. Assn. of U.S., Inc.
1975	Commercial Shearling, Inc.	1937	NL Industries, Inc.
1958	Companhia Siderurgica Nacional	1974	National Annealing Box Company
1973	Consolidated Edison Co. of New York, Inc.	1973	National Forge Company
1972	Consolidated Natural Gas Service Company	1972	Organization Resources Counselors, Inc.
1975	Consolidation Coal Company, Inc.	1953	Owens-Corning Fiberglass Corporation
1975	D'Appolonia Consulting Engineers, Inc.	1936	Owens-Illinois, Inc.
1974	DeSoto, Inc.	1937	PPG Industries, Inc.
1952	Diamond Shamrock Corporation	1937	Pennsylvania Glass Sand Corporation
1973	Dow Chemical U.S.A.	1972	Peoples Natural Gas Company
1917	Drakenfeld Division, Hercules, Inc.	1975	Pittsburgh & Lake Erie Railroad
1937	Dravo Corporation	1970	Pneumafil Corporation
1916	E. I. du Pont de Nemours & Company	1938	Portland Cement Association
1966	Eastman Kodak Company	1970	Potters Industries, Inc.
1971	Minerals & Chemicals Division, Engelhard Minerals & Chemicals Corp.	1973	Pullman-Standard
1975	Epi Metals Corporation	1968	Raybestos-Manhattan, Inc.
1954	Equitable Life Assurance Society of U.S.	1937	H. H. Robertson Company
1964	Eaton Corporation	1972	Safety First Industries, Inc.
1971	Falcon Foundry Company	1973	The Sager Glove Corporation
1974	Fostoria Glass Company	1937	St. Joe Minerals Corporation
1916	Foundry Supply Manufacturers Group	1956	Sauereisen Cements Company
1970	General Cigar Company, Inc.	1956	Seattle Services Division, The Boeing Co.
1947	General Electric Company	1971	Selenium-Tellurium Development Assn., Inc.
1951	General Mills, Inc.	1974	Sharon Steel Corporation
1942	General Motors Corporation	1972	Shell Oil Company
1974	General Refractories Company Co.	1974	Shenango Incorporated
1954	Georgia Kaolin Company	1956	Soap and Detergent Association
		1975	The Standard Oil Company

*Multiple Membership

<u>Date</u> <u>Joined</u>	<u>Company</u>
1962	Stauffer Chemical Company
1965	Sturm, Ruger & Company, Inc.
1969	Tenneco, Inc.
1966	Thermal Insulation Manufacturers Association, Inc.
1970	Travelers Insurance Companies
1972	Tri-State Engineering Company
1936	Union Carbide Corporation
1974	United States Gypsum Company
1970	U. S. Mineral Products Company
1936	U. S. Potters Association
1936	United States Steel Corporation

<u>Date</u> <u>Joined</u>	<u>Company</u>
1960	Van Straaten Chemical Company
1938	Vesuvius Crucible Company
1975	Vulcan Mold & Iron Company
1975	Washington Mould, Machine & Foundry Company
1974	Watson-Standard Company
1937	Wedron Silica Division, Del Monte Properties Company
1962	Western Electric Company, Inc.
1937	Westinghouse Electric Corporation
1968	Arthur C. Withrow Company
1975	Young Galvanizing, Inc.

NEW MEMBERS

The Ansul Company
 Consolidation Coal Company, Inc.
 E. D'Appolonia Consulting Engineers, Inc.
 Epic Metals Corporation
 Industrial Gasket & Shim Company, Inc.
 Monongahela Iron & Metal Company, Inc.
 Pittsburgh & Lake Erie Railroad
 The Standard Oil Company
 Vulcan Iron & Mold Company
 Washington Mould, Machine & Foundry Company
 Young Galvanizing, Inc.

ALL members - 1976 Annual Reports

<u>Date Joined</u>	<u>Company</u>	<u>Date Joined</u>	<u>Company</u>
1937	*Abrasive Grain Association	1973	Falcon Foundry Co.
1976	Allegheny County Sanitary Authority	1976	Fort Pitt Steel Casting
1936	Allegheny Ludlum Industries, Inc.	1974	Fostoria Glass Co.
1956	Allied Chemical Corp.	1976	Franklin Glue Co.
1936	Aluminum Company of America	1936	Foundry Supply Manufacturers Group
1969	Aluminum Company of Canada, Ltd.	1970	General Cigar Co., Inc.
1947	American Can Co.	1947	General Electric Co.
1971	American Foundrymen's Society	1951	General Mills, Inc.
1938	*American Insurance Association	1942	General Motors Corp.
1944	American Iron and Steel Institute	1974	General Refractories Co.
1957	AMAX, Inc.	1954	Georgia Kaolin Co.
1937	American Mining Congress	1937	Grinding Wheel Institute
1945	*American Mutual Insurance Alliance	1950	Gulf Oil Corp.
1944	A. O. Safety Products (Div. of American Optical Corp.)	1976	Halcon International, Inc.
1967	American Petroleum Institute	1936	Hall China Co.
1976	American Restaurant China Council, Inc.	1976	Harbison-Walker Refractories
1936	ASARCO Incorporated	1972	Heinz U.S.A. (Div. of H. J. Heinz Co.)
1969	American Textile Mfrs. Institute, Inc.	1976	Hill & Griffith Co.
1976	American Welding & Manufacturing Co.	1973	Howell Industrial Clings
1976	American Wood Preservers Institute	1937	Huntington Alloys, Inc.
1976	Americhem Inc.	1975	Industrial Gasket & Shim Co., Inc.
1976	Anaconda Co., Wire & Cable Div.	1973	Ingersoll-Rand Co.
1966	ARCO/Polymers, Inc.	1947	Inland Steel Co.
1970	Argonaut Insurance Co.	1947	IBM Corp.
1974	BASF Wyandotte Corp.	1970	International Lead Zinc Research Org.
1970	The Bahnsen Co.	1974	International Technical Information Inst.
1944	Brush Wellman, Inc.	1936	Johns-Manville Corp.
1955	CPC International, Inc.	1939	Jones & Laughlin Steel Corp.
1953	Can Manufacturers Institute, Inc.	1955	Kawecki Berylco Industries, Inc.
1971	*Cemented Carbide Producers Association	1974	Kopp Glass, Inc.
1968	Certain-Ted St. Gobain Insulation Corp.	1942	Koppers Co., Inc.
1974	Chrysler Corp.	1970	Laclede Steel Co.
1958	Ciba-Geigy AG	1962	Lagoven, S.A.
1974	Colt Industries Inc.	1968	Homer Laughlin China Co.
1972	Columbia Gas System Service Corp.	1974	Lenox Crystal, Inc.
1976	Commercial Shearing, Inc.	1937	J. S. McCormick Co.
1958	Companhia Siderurgica Nacional	1976	Marathon Oil Co.
1973	Consolidated Edison Co. of New York, Inc.	1966	Marcona Mining Co.
1972	Consolidated Natural Gas Service Co.	1970	Marion Health & Safety, Inc.
1975	Consolidation Coal Co., Inc.	1937	Metropolitan Life Insurance Co.
1975	D'Appolonia Consulting Engineers, Inc.	1965	Miles Laboratories, Inc.
1974	DeSoto, Inc.	1974	Milliken Brick Co.
1952	Diamond Shamrock Corp.	1936	Mine Safety Appliances Co.
1976	Dick Corp.	1974	Mobay Chemical Co.
1973	Dow Chemical U.S.A.	1975	Monongahela Iron & Metal Co., Inc.
1976	Dow Corning Corp.	1936	Motor Vehicle Mfrs. Assn. of U.S., Inc.
1947	Drazenfeld Division, Hercules, Inc.	1937	NL Industries, Inc.
1937	Dravo Corp.	1974	National Annealing Box Co.
1936	E. I. du Pont de Nemours & Co.	1973	National Forge Co.
1960	Eastman Kodak Co.	1972	Organization Resources Consultants, Inc.
1973	Minerals & Chemicals Division, Engelhard Minerals & Chemicals Corp.	1953	Owens-Corning Fiberglas Corp.
1975	Epic Metals Corp.	1937	PPG Industries, Inc.
1950	Equitable Life Assurance Society of U. S.	1937	Pennsylvania Glass Sand Corp.
1964	Exxon Corp.	1972	Peoples Natural Gas Co.
1976	Essex Group	1975	Pittsburgh & Lake Erie Railroad
		1970	Pneumafil Corp.
		1938	Portland Cement Association

IHF Members (continued)

<u>Date Joined</u>	<u>Company</u>	<u>Date Joined</u>	<u>Company</u>
1970	Potters Industries, Inc.	1969	Tenneco, Inc.
1973	Pullman-Standard	1966	Thermal Insulation Mfrs. Assn., Inc.
1976	RAD Services, Inc.	1976	Tile Council of America, Inc.
1968	Raybestos-Manhattan, Inc.	1970	Travelers Insurance Co.
1976	The Refractories Institute	1972	Tri-State Engineering Co.
1937	H. H. Robertson Co.	1976	II-VI Inc.
1976	SCM Corp.	1936	Union Carbide Corp.
1972	Safety First Industries, Inc.	1974	United States Gypsum Co.
1976	Schering-Plough Corp.	1970	U. S. Mineral Products Co.
1973	The Sager Glove Corp.	1936	U. S. Potters Association
1937	St. Joe Minerals Corp.	1936	United States Steel Corp.
1956	Sauerselsen Cements Co.	1960	Van Stratten Chemical Co.
1956	Seattle Services Div., The Boeing Co.	1972	Vesuvius Crucible Co.
1971	Selenium-Tellurium Development Assn., Inc.	1975	Vulcan Mold & Iron Co.
1976	Senco Products, Inc.	1976	WABCO Transportation Systems Group
1974	Sharon Steel Corp.	1973	Washington Mould Machine & Foundry Co.
1972	Shell Oil Co.	1974	Watson-Standard Co.
1974	Shenango Inc.	1937	Wedron Silica Division, Del Monte Properties Co.
1956	Soap and Detergent Association	1962	Western Electric Co., Inc.
1975	The Standard Oil Co.	1937	Westinghouse Electric Corp.
1962	Stauffer Chemical Co.	1976	Williams & Co., Inc.
1976	Stallite Division, Cabot Corp.	1968	Arthur C. Withrow Co.
1965	Sturm, Ruger & Co., Inc.	1975	Young Galvanizing, Inc.

NEW MEMBERS

Allegheny County Sanitary Authority
 American Restaurant China Council, Inc.
 American Welding and Manufacturing Company
 American Wood Preservers Institute
 Americhem, Incorporated
 Anaconda Company, Wire and Cable Division
 Commercial Shearing, Incorporated
 Dick Corporation
 Dow Corning Corporation
 Essex Group, Incorporated
 Fort Pitt Steel Casting
 The Franklin Glue Company
 Halcon International, Incorporated
 Harbison-Walker Refractories
 Hill and Griffith Company
 Marathon Oil Company
 RAD Services, Incorporated
 The Refractories Institute
 Schering-Plough Corporation
 Senco Products, Incorporated
 SCM Corporation
 Stallite Division, Cabot Corporation
 Tile Council of America, Incorporated
 II-VI Incorporated
 WABCO Transportation Systems Group
 Williams and Company, Incorporated

NEW MEMBERS - 1977 Annual Report

<u>Date</u> <u>Joined</u>	<u>Company</u>	<u>Date</u> <u>Joined</u>	<u>Company</u>
1917	*Abrasive Grain Association	1956	Equitable Life Assurance Society of U.S.
1976	Allegheny County Sanitary Authority	1976	Essex Group, Inc.
1936	Allegheny Ludlum Industries, Inc.	1964	Exxon Corp.
1945	*Alliance of American Insurers	1973	Falcon Foundry Co.
1956	Allied Chemical Corp.	1976	Fort Pitt Steel Casting
1936	Aluminum Co. of America	1974	Fostoria Glass Co.
1969	Aluminum Co. of Canada, Ltd.	1936	Foundry Supply Manufacturers Group
1957	AMAX, Inc.	1976	The Franklin Glue Co.
1947	American Can Co.	1970	General Cigar & Tobacco Co., Inc.
1971	American Foundrymen's Society		of Culbro Corp.
1973	American Industrial Hygiene Association	1947	General Electric Co.
1938	*American Insurance Association	1951	General Mills, Inc.
1944	American Iron & Steel Institute	1942	General Motors Corp.
1917	American Mining Congress	1974	General Refractories Co.
1967	American Petroleum Institute	1954	Georgia Kaolin Co.
1976	American Restaurant China Council, Inc.	1937	*Grinding Wheel Institute
1936	ASARCO, Inc.	1950	Gulf Oil Corp.
1964	American Textile Manufacturers Institute, Inc.	1976	Halcon International, Inc.
1976	American Welding & Manufacturing Co.	1936	Hall China Co.
1976	American Wood Preservers Institute	1977	Hankison Corp.
1976	Americhem, Inc.	1976	Harbison-Walker Refractories
1976	Anaconda Co., Wire & Cable Division	1972	Helar U.S.A. (Div. of H. J. Heinz Co.)
1966	AKCO/Polymers, Inc.	1966	Hierro-Peru
1970	Argonaut Insurance Co.	1976	Hill & Griffith Co.
1974	BASF Wyandotte Corp.	1973	Howell Industrial Clinic
1977	Borg-Warner Chemicals	1937	Huntington Alloys, Inc.
1944	Brush Wellman, Inc.	1975	Industrial Gasket & Shim Co., Inc.
1977	Buffalo Color Corp.	1947	Inland Steel Co.
1955	CIC International, Inc.	1947	International Business Machines Corp.
1977	Campbell Soup Co.	1970	International Lead Zinc Research Organization
1971	*Cemented Carbide Producers Association	1936	Johns-Manville Corp.
1977	Central Medical Health Services	1939	Jones & Laughlin Steel Corp.
1968	CertainFeed Corp.	1955	Kawecki Berylo Industries, Inc.
1974	Chrysler Corp.	1974	Kopp Glass, Inc.
1958	Ciba-Geigy AG	1970	Laclede Steel Co.
1971	Colt Industries Inc.	1962	Lagoven, S.A.
1972	Columbia Gas System Service Corp.	1968	Homer Laughlin China Co.
1975	Commercial Shearing, Inc.	1974	Lenox Crystal, Inc.
1958	Companhia Siderurgica Nacional	1937	J. S. McCormick Co.
197	Consolidated Edison Co. of New York, Inc.	1976	Marathon Oil Co.
197	Consolidated Natural Gas Service Co.	1977	Metropolitan Life Insurance Co.
1976	Consolidation Coal Co., Inc.	1936	Mine Safety Appliances Co.
1977	Cummins Engine Co., Inc.	1971	Mohay Chemical Co.
1972	Daiichi Chemical Co., Ltd.	1977	Monongahela Iron & Steel Co.
1976	Danisco Corp.	1977	Motor Cords Manufacturing Co.
1973	Dow Chemical U.S.A.	1976	Motor Vehicle Manufacturers Assn. of U.S., Inc.
1976	Dow Corning Corp.	1974	National Aggregating Box Co.
1967	Drakenfeld Division, Hercules, Inc.	1972	National Forge Co.
1977	Dravo Corp.	1977	National Health Watch, Inc.
1966	Eastman Kodak Co.	1972	Organization Resources Consultants, Inc.
1976	F. I. du Pont de Nemours & Co.	1953	Owens-Corning Fiberglas Corp.
1971	Minerals & Chemicals Division	1917	PPG Industries, Inc.
	Engelhard Minerals & Chemicals Corp.	1937	Pennsylvania Glass Sand Corp.
1975	Fpm Metals Corp.		

*Multiple Membership

IHF MEMBERS (continued)

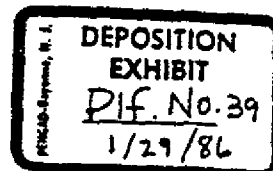
<u>Date Joined</u>	<u>Company</u>
1972	Peoples Natural Gas Co.
1975	Pittsburgh & Lake Erie Railroad
1970	Pneumafil Corp.
1938	Portland Cement Association
1970	Potters Industries, Inc.
1973	Pullman-Standard
1977	Quaker State Oil Refining Corp.
1976	RAD Services, Inc.
1968	Raybestos-Manhattan, Inc.
1976	The Refractories Institute
1937	H. H. Robertson Co.
1976	SCM Corp.
1972	Safety First Industries, Inc.
1973	The Sager Glove Corp.
1937	St. Joe Minerals Corp.
1937	Sauereises Cements Co.
1977	Schuylkill Metals Corp.
1956	Seattle Services Div., The Boeing Co.
1976	Senco Products, Inc.
1974	Sharon Steel Corp.
1972	Shell Oil Co.
1974	Shenango Inc.
1956	Soap & Detergent Association
1977	Spartek, Inc.
1975	The Standard Oil Co.
1937	Stauffer Chemical Co.

<u>Date Joined</u>	<u>Company</u>
1976	Stellite Division, Cabot Corp.
1969	Tenneco, Inc.
1966	Thermal Insulation Manufacturers Assn.
1976	Tile Council of America, Inc.
1970	Travelers Insurance Companies
1972	Tri-State Engineering Co.
1976	II-VI Inc.
1936	Union Carbide Corp.
1974	United States Gypsum Co.
1970	U. S. Minerals Products Co.
1936	U. S. Potters Association
1936	United States Steel Corp.
1960	Van Straaten Chemical Co.
1972	Vesuvius Crucible Co.
1977	Volkswagen Mfg. Corp. of America
1976	WABCO Railway Products Group
1975	Washington Mold, Machine & Foundry Co.
1974	Watson-Standard Co.
1937	Wedron Silica Div., Pyle Beach Corp.
1977	Wenzel Tile Co.
1962	Western Electric Co., Inc.
1937	Westinghouse Electric Corp.
1977	Whirlpool Corp.
1976	Williams & Co., Inc.
1975	Young Galvanizing, Inc.

NEW MEMBERS — 1977

Borg-Warner Chemicals
Buffalo Color Corp.
Campbell Soup Co.
Central Medical Health Services
John D. Copanos Co., Inc.
Hankison Corp.
Motor Coils Manufacturing Co.
National Health Watch, Inc.
Quaker State Oil Refining Corp.
Schuylkill Metals Corp.
Spartek, Inc.
Volkswagen Manufacturing Corp. of America
Wenzel Tile Co.
Whirlpool Corp.

IHF MEMBERS - 1978 Annual Report



<u>Date Joined</u>	<u>Company</u>
1937	*Abrasive Grain Association
1978	Alberta Dept. of Labour
1976	Allegheny County Sanitary Authority
1936	Allegheny Ludlum Industries, Inc.
1945	*Alliance of American Insurers
1956	Allied Chemical Corp.
1936	Aluminum Co. of America
1969	Aluminum Co. of Canada
1957	AMAX, Inc.
1947	American Can Co.
1971	American Foundrymen's Society
1973	American Industrial Hygiene Association
1938	*American Insurance Association
1944	American Iron & Steel Institute
1937	American Mining Congress
1967	American Petroleum Institute
1976	American Restaurant China Council, Inc.
1969	American Textile Mfrs. Institute, Inc.
1976	American Welding & Manufacturing Co.
1976	American Wood Preservers Institute
1976	Americhem Inc.
1976	Anacosta Co., Wire & Cable Div.
1966	ARCO/Polymers, Inc.
1970	Argonaut Insurance Co.
1936	ASARCO, Inc.
1977	Borg-Warner Chemicals
1944	Brush Wellman, Inc.
1977	Buffalo Color Corp.
1977	Campbell Soup Co.
1971	*Cemented Carbide Producers Assn.
1977	Central Medical Health Services
1968	CertainTeed Corp.
1974	Chrysler Corp.
1958	Ciba-Geigy AG
1974	Colt Industries Inc.
1972	Columbia Gas System Service Corp.
1978	Columbia Nitrogen Corp.
1975	Commercial Shearing, Inc.
1958	Companhia Siderurgica Nacional
1973	Consolidated Edison Co. of New York, Inc.
1972	Consolidated Natural Gas Service Co.
1975	Consolidation Coal Co., Inc.
1977	John D. Copanos Co., Inc.
1978	D'Appolonia Consulting Engineers, Inc.
1952	Diamond Shamrock Corp.
1976	Dick Corp.
1973	Dow Chemical U.S.A.
1976	Dow Corning Corp.
1937	Drakenfeld Div., Hercules, Inc.
1937	Dravo Corp.
1936	E. I. du Pont de Nemours & Co.
1978	Duraloy Blaw-Knox, Inc.
1973	Minerals & Chemicals Division Engelhard Minerals & Chemicals Corp.

19--

<u>Date Joined</u>	<u>Company</u>
1976	Essex Group
1964	Exxon Corp.
1973	Falcon Foundry Co.
1978	Fisher Controls Co.
1976	Fort Pitt Steel Casting
1974	Fostoria Glass Co.
1936	Foundry Supply Manufacturers Group
1976	The Franklin Glue Co.
1978	General Alloy Casting Co.
1970	General Cigar & Tobacco Co.
1947	General Electric Co.
1951	General Mills, Inc.
1942	General Motors Corp.
1974	General Refractories Co.
1954	Georgia Kaolin Research
1937	*Grinding Wheel Institute
1950	Gulf Oil Corp.
1976	Halcon International, Inc.
1936	Hall China Co.
1977	Hankison Corp.
1976	Harbison-Walker Refractories
1978	Harvey Industries, Inc.
1966	Hierro-Peru
1976	Hill & Griffith Co.
1973	Howell Industrial Clinic
1937	Huntington Alloys, Inc.
1978	Huntington Plating, Inc.
1978	ICI Americas, Inc.
1978	ILCO, Inc.
1978	Imaging Systems Corp.
1975	Industrial Gasket & Shim Co.
1947	Inland Steel Co.
1947	International Business Machines Corp.
1970	International Lead Zinc Research Org.
1936	Johns-Manville Corp.
1939	Jones & Laughlin Steel Corp.
1955	Kawachi Beryco Industries, Inc.
1974	Kopp Glass, Inc.
1942	Koppers Co., Inc.
1970	Laclede Steel Co.
1962	Lagoven, S.A.
1968	Homer Laughlin China Co.
1974	Lenox Crystal, Inc.
1978	M & T Chemicals, Inc.
1937	J. S. McCormick Co.
1976	Marathon Oil Co.
1978	C. H. Masland & Sons
1937	Metropolitan Life Insurance Co.
1936	Mine Safety Appliances Co.
1974	Mobay Chemical Co.
1978	Molded Fiber Glass Tray Co.
1975	Monongahela Iron & Metal Co.
1977	Motor Coils Manufacturing Co.
1936	Motor Vehicle Manufacturers

P-39

IHF MEMBERS (continued)

<u>Date</u> <u>Joined</u>	<u>Company</u>	<u>Date</u> <u>Joined</u>	<u>Company</u>
1977	National Health Watch, Inc.	1974	Shenango Inc.
1972	Organization Resources Counselors, Inc.	1956	Soap & Detergent Association
1953	Owens-Corning Fiberglass Corp.	1977	Spartek, Inc.
1937	Pennsylvania Glass Sand Corp.	1975	The Standard Oil Co.
1978	Pennsylvania Power Co.	1976	Stallite Div., Cabot Corp.
1972	Peoples Natural Gas Co.	1969	Tenneco Inc.
1975	Pittsburgh & Lake Erie Railroad	1966	Thermal Insulation Manufacturers Assn
1970	Pneumafil Corp.	1978	Tile Council of America, Inc.
1938	Portland Cement Association	1970	Travelers Insurance Companies
1970	Potters Industries, Inc.	1972	Tri-State Engineering Co.
1937	PPG Industries, Inc.	1976	II-VI Inc.
1973	Pullman-Standard	1936	Union Carbide Corp.
1977	Quaker State Oil Refining Corp.	1974	United States Gypsum Co.
1976	RAD Services, Inc.	1970	U. S. Mineral Products Co.
1968	Raybestos-Manhattan, Inc.	1936	U. S. Potters Association
1976	The Refractories Institute	1960	Van Straaten Chemical Co.
1937	R. H. Robertson Co.	1972	Vesuvius Crucible Co.
1978	Roux Laboratories, Inc.	1977	Volkswagen Mfg. Corp. of America
1972	Safety First Industries, Inc.	1976	WABCO Railway Products Group
1973	The Sager Glove Corp.	1975	Washington Mould, Machine & Foundry Co.
1937	St. Joe Minerals Corp.	1974	Watson-Standard Co.
1956	Sauersisen Cements Co.	1977	Wenzel Tile Co.
1977	Schuykill Metals Corp.	1962	Western Electric Co.
1976	SCM Corp.	1937	Westinghouse Electric Corp.
1956	Seattle Services Div., Boeing Co.	1977	Whirlpool Corp.
1976	Seneca Products, Inc.	1976	Williams & Co.
1974	Sharon Steel Corp.	1975	Young Galvanizing, Inc.
1972	Shell Oil Co.		

NEW MEMBERS — 1978

Alberta Department of Labour
 Columbia Nitrogen Corp.
 Duraloy Blaw-Knox, Inc.
 Fisher Controls Co.
 General Alloy Casting Co.
 Harvey Industries, Inc.
 Huntington Plating, Inc.
 ILCO, Inc.
 Imaging Systems Corp.
 M & T Chemicals, Inc.
 C. H. Masland & Sons
 Molded Fiber Glass Tray Co.
 Pennsylvania Power Co.
 Roux Laboratories, Inc.

IHF MEMBERSHIP LISTS

1981 - From Acme dated Sept. 17, 1981

1980 - Complete (Annual Report)

1979 - " "

1978 - " "

1977 - " "

1976 - " "

1975 - " "

1974 - " "

1973 - " "

1972 - New members only (Minutes Board of Trustees Meetings, Feb. 8, May 9, Oct.

1971 - New members only (Minutes Board of Trustees Meetings, Mar. 9 and Oct. 11)

1970 - Complete (Annual Report)

1969 - " "

1968 - " "

1967 - " "

1966 - " "

1965 - " "

1964 - " "

1963 - Members represented by proxies, new members, members resigned.
(Meeting of Members, October 23, 1963)

1962 - New members only (Annual Report)

1961 - " " " "

1960 - No record

EX.	<u>B</u>
WIT.	<u>R. Powers</u>
DATE	<u>5-5-82</u>
R. POWERS RPTR.	

IHF MEMBERSHIP LISTS (Contd.)

- 1959 - Complete (Annual Report)
- 1958 - No record
- 1957 - New members only (Transactions Bulletin No. 31, 22nd Annual Meeting, October 30-31, 1957)
- 1956 - New members only (Transactions Bulletin No. 30, 21st Annual Meeting, November 14-15, 1956)
- 1955 - New members only (Transactions Bulletin No. 29, 20th Annual Meeting, November 16-17, 1955)
- 1954 - New members only (Transactions Bulletin No. 28, 19th Annual Meeting, November 17-18, 1954)
- 1953 - New members only (Transactions Bulletin No. 26, 18th Annual Meeting, November 19, 1953)
- 1952 - No record
- 1951 - New members only (Transactions Bulletin No. 19, 16th Annual Meeting, November 15, 1951)
- 1950 - New members only (Transactions Bulletin No. 15, 15th Annual Meeting, November 16, 1950)
- 1949 - New members only (Transactions Bulletin No. 11, 14th Annual Meeting, November 17, 1949)
- 1948 - New members only (Transactions Bulletin No. 10, 13th Annual Meeting, November 18, 1948)
- 1947 - New members only (Transactions Bulletin No. 9, 12th Annual Meeting, November 20, 1947)
- 1946 - Complete (Transactions Bulletin No. 8, 11th Annual Meeting, November 7, 1946)
- 1945 - Complete (Proceedings, 10th Annual Meeting, November 14-15, 1945, Part IV)
- 1944 - Complete (Proceedings, 9th Annual Meeting, November 15-16, 1944, Part IV)
- 1943 - Complete (Proceedings, 8th Annual Meeting, November 10-11, 1943)
- 1942 - New members only (Proceedings, 7th Annual Meeting, November 10-11, 1942)

IHF MEMBERSHIP LISTS (Contd.)

1941 - New members only (Proceedings, 6th Annual Meeting, November 12-13, 1941)

1940 - New members only (Proceedings, 5th Annual Meeting, November 12-13, 1940)

1939 - No record

1938 - No record

1937 - Complete (Proceedings of Special Meeting, November 30, 1937)