



Ray Boundy

RAY H. BOUNDY

1903–1992

BY ROBERT M. NOWAK

RAY H. BOUNDY, a former vice-president and director of research for the Dow Chemical Company, died in Midland, Michigan, on November 19, 1992. A pioneer in industrial chemical research, Dr. Boundy used his creative genius and leadership skills to build one of the most innovative research organizations in the country.

Dr. Boundy was born in Brave, Pennsylvania, on January 10, 1903. The Boundy family later moved to Grove City, Pennsylvania, where Dr. Boundy graduated from Grove City College in 1924 with a bachelor of science degree in chemistry. He initially considered a career as a ship's radio engineer but heeded a chemistry instructor's advice to pursue science instead. He then attended Case Institute of Technology, receiving bachelor's and master's degrees in chemical engineering. In 1926—the same year he married the former Geraldine McCurdy—Dr. Boundy also began his forty-two year career at the Dow Chemical Company.

After working in the Dow Main Laboratory for only one year, Dr. Boundy was "borrowed" by the Physical Research Laboratory, which was experiencing a remarkable outburst in creativity and discovery—especially in the fields of organic chemistry and plastics. Dr. Boundy worked closely with laboratory director and "idea man" Dr. John Grebe, becoming assistant lab director in 1930. One of Dr. Boundy's main tasks, he said,

was to sift through John's ideas and help "pick out those that were good from those that weren't."

In 1942 Dr. Boundy became an assistant to Dow President Willard H. Dow and was put in charge of building and managing styrene facilities in the United States and Canada. This was instrumental in helping Dow—and others—produce the styrene urgently needed for the government's wartime rubber reserve program. At war's end, Dr. Boundy served as a colonel in the U.S. Army, traveling to Germany to study and report on Axis wartime developments in plastics. He also served as a U.S. representative for the Rubber Reserve and Technical Industrial Intelligence Committees.

In 1945 Dr. Boundy was appointed manager of Dow's rapidly expanding Plastics Department—the first of Dow's product departments. In 1947 he received an honorary doctor of science degree from Grove City College for his notable contributions in the field of organic chemistry. In 1950 he was elected to the Dow board of directors and in 1952 he became the company's first full-time director of research. He was named a vice-president of the company in 1953. After retiring from Dow in 1968, he continued to have a positive influence on the growth of science as a research management consultant through the International Executive Service Corps.

As a researcher, administrator, and author, Dr. Boundy made many contributions. He was active in the following areas, for example: the invention of DOWTHERM heat transfer fluids, the Dow process for extracting bromine from seawater, the use of ferric chloride as a coagulant in treating municipal water and sewage, and the development of the Dow processes for manufacturing ethylene and ethylene-based products. Dr. Boundy was responsible for fifteen patents and numerous publications in technical journals. He also coauthored the books *Styrene: Its Polymers, Copolymers, and Derivatives* in 1952 and *A History of the Dow Chemical Physics Lab: The Freedom to be Creative* in 1990.

In the latter book, Dr. Boundy reflects on the importance of creativity, and how it exists in everyone. All that's needed, he said, is a little encouragement. Dr. Boundy gave encourage

ment, motivation, and accountable freedom to young and seasoned scientists alike. He was renowned for his accessibility to others throughout his career, and had avid enthusiasm for individuals as well as for projects. Dr. Boundy is described by colleagues as a man who had excellent judgment on both technical and business matters, accurate instincts about new product families, and a management philosophy that guided, rather than dictated, research conclusions.

Dr. Boundy is remembered as an innovative research administrator who introduced concepts that profoundly affected the business, operations, and success of Dow. As examples, he introduced the product department concept to Dow, organized the first technical service laboratory, and developed world-class and worldwide technical service organizations. He also developed the company's long-range market research program, organized its Research Economics Department, and contributed to the company's research evaluation methods.

In 1964 Dr. Boundy received the Industrial Research Institute Medal for outstanding accomplishment in the leadership and management of industrial research. In 1965 he received a Scroll Award from the National Association of Manufacturers, which recognized him as a modern pioneer in creative industry. He also received an Alumni Achievement in Science Award from Grove City College.

In 1967 Dr. Boundy was elected to the National Academy of Engineering. He was also a member of the American Chemical Society, the American Institute of Chemical Engineers, the Electrochemical Society, the Engineering Society of Detroit, the Scientific Research Society of America, the Society of Automotive Engineers, and many other associations.

The productive enthusiasm of Ray Boundy—an enthusiasm also extended to his family and community as Boy Scout leader, softball catcher, trout fisherman, bird hunter, ham radio operator, and avid skier—will long be remembered and appreciated by Dow, the chemical industry, and his family and friends.