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## The Chemistry Profession Must Act Now to Assume an Environmentally Sound Code of Ethics

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In this issue's page 1 story on next week's national meeting of the American Chemical Society (ACS), president-elect Paul G. Gassman points out that chemistry's public image is suffering. The general public is very sensitive to the environmental impact of chemicals, including air and water pollution, toxic waste generation, ozone depletion, global warming, and acid rain. And as public anxiety over the environment grows, public confidence in chemistry seems to shrink.

As a chemist, I am concerned about our profession's image. Simply as a matter of professional pride, chemists should want the public to recognize the profound social, economic, and intellectual value of their work. If negative perceptions are allowed to persist, public support for chemical research might decline, and fewer students might choose a career in chemistry. Also, if chemistry becomes viewed widely as an antienvironmental enterprise, the chemical industry can expect increased pressure for tighter government regulation.

What can chemists do to restore confidence in their profession? Gassman suggests that effective public education programs are

needed to counteract sensational media coverage, which he says has focused on the "downside of chemistry." But the media are not entirely responsible for chemistry's image problem. Rather, environmental accidents in the chemical or related industries are to blame.

The Exxon Valdez oil spill is a prominent example, and Exxon's slow initial response to the spill and its desire to quickly end the cleanup effort have weakened the company's credibility. Another appalling environmental incident involved the Rocky Flats nuclear weapons plant in Colorado, where according to the U.S. Justice Department, employees twice dumped toxic chemicals into creeks feeding Denver's drinking water supplies.

Industry should follow the very positive example set by Du Pont Co. Edgar Woolard, Jr., Du Pont's chairman and chief executive officer, affirmed a new ethic to guide the company's future actions: corporate environmentalism. He defined this ethic as "an attitude and a performance commitment that places corporate environmental stewardship fully in line with public desires and expectations." ("Environmental Stewardship," *Chemi-*

*cal & Engineering News*, 67:12-15, May 29, 1989).

Woolard's objective is to make Du Pont one of the world's most environmentally sound manufacturing companies. The firm's performance will be measured against a number of explicitly stated goals. They include: completely phasing out production of chlorofluorocarbons, which damage atmospheric ozone, within 10 years; reducing total hazardous waste at least 35% by 1990; eliminating use of heavy-metal pigments in plastic products; removing plastics from the solid waste stream; and managing at least 1,000 square miles of land as a wildlife habitat. To underscore Du Pont's commitment to this new ethic, compensation for middle management and senior executives will be determined directly by environmental performance.

Individual chemists should consider pledging themselves to a new ethic of personal environmentalism. Linus Pauling is a perfect model of

the conscientious chemist. He combined a brilliant career in chemistry with a commitment to ban atmospheric nuclear tests. In presenting the Nobel Peace Prize to Pauling in 1963, the chairman of the Nobel committee, Gunnar Jahn, observed that "Pauling has manifested the ethical responsibility, which he believes science should bear for the fate of mankind, today and in the future."

Perhaps the chemical profession should develop an explicit code of conscientious conduct similar to the physician's Hippocratic oath. An oath for chemists would forcefully affirm their obligation to engage only in work that benefits mankind and the environment, and to avoid actions that endanger human or environmental health. Of course, the oath by itself will not reassure the public about chemistry's integrity. But to the extent that it is scrupulously honored by chemists, the profession will be more highly regarded. ■