

"It would be good for us to study the teachings of Confucius. Somehow our society has forgotten that a prestigious career and a weak family are as useful to society as a house with no foundation. In Indian philosophy, life stages (known as ashrama) are acknowledged. A man is responsible first for learning, and then, in his later years, he must lead his family as a "householder." As he grows older, he leads his community and ultimately prepares for death. It is much more sensible to make our older and wiser workers the vital essence of our institutions while letting the younger members build solid homes in their early years."

The workplace needs to accommodate the multiple roles of men and women and not to penalize those workers who choose to have children and continue their careers," says McConica, the mother of 11-year-old Anna and 14-year-old Ian, who were born while she worked on her degrees. "The national labs, the top five companies, and the top education institutions fail to recognize any existence other than one which is experienced by a single male with no obligations beyond the classroom. They hire based upon graduate GPAs and years elapsed between degrees."

Because of these inequities, McConica sees many young women choosing not to have children, fearing that the workplace will not allow them to have both

children and a career. "In the corporate board rooms of America, there are three taboo subjects: childbearing, childrearing, and death—events certain to happen to most of us. It is comical to me that the very engineers who pretend to understand boundary conditions and initial conditions so well seem to be completely ignorant of the fact that tomorrow's students and employees come from women who have agreed to supply their wombs for the creation of those lives. In today's society, with dual careers, there is little incentive for a woman to make this sacrifice."

Corporations and society must support women and men who choose to balance children and careers, McConica says. She adds that practical solutions could be found in government-mandated parental leaves (including job security), the encouragement of part-time employment and flexible hours, and significant tax credits for the work accomplished by homemakers.

As exciting as corporate achievements, travel, and consulting can be, society must judge itself through its elderly and its children, she says. "I will consider myself a success if my children freely understand that they have choices in their lives and if my students understand that the human side of engineering is just as important as the technical side. It is the balanced, whole person who ultimately builds a strong society." □

## ChE letters

### HEALTH AND SAFETY TEACHING AIDS

To the Editor:

Mr. J.P. Gupta's article in the summer 1989 issue of *Chemical Engineering Education* outlines one way to teach chemical process safety and health for those undergraduate engineering students who elect this course. The Center for Chemical Process Safety of the American Institute of Chemical Engineers has chosen a different means — teaching health and safety to virtually all students within the framework of required, traditional engineering courses. Teaching health and safety concepts in several courses is an important step toward satisfying "minimum" ABET *Criteria*.

The teaching material, available for the 1990-91 academic year, consists of 90 problems which illustrate safety, health, and loss prevention concepts, such as vapor releases, explosions, and toxic exposure, and which supplement the teaching of traditional engineering courses, including thermodynamics, heat transfer, kinetics, process design. They require mathematical solutions using engineering principles as well as consideration of safety, health, and loss prevention safety issues.

The problems were conceived and developed by chemical engineering faculty of several universities,

government officials, and industry professionals working under the auspices of the Undergraduate Education Committee of CCPS. To assure realism and ease of use, the material has been reviewed by engineers in industry for accuracy and applicability and has been tested and critiqued by chemical engineering faculty of 40 colleges and universities.

To encourage widespread use of these problems, the Instructor's Guide, with problems, student and instructor notes, and solutions, is available free of charge to faculty who wish to use the problems with the student's book. The Student Problem book, good for all years of study and later reference, will be sold through bookstores at \$18. The U.S. Environmental Protection Agency and National Institute for Occupational Safety and Health which consider this a high priority program are, along with CCPS sponsors, subsidizing project costs.

Information about the Instructor's Guide and Student Problems book is being mailed in February to all chemical engineering faculty in the U.S. and Canada. Faculty members who do not receive this information are urged to contact the Center for Chemical Process Safety at AIChE's offices, 345 East 47th Street, New York, NY 10017, or by calling (212) 705-7319.

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Undergraduate Education Committee  
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