

Gina Cody, P.Eng.: Structural integrity

by Dwight Hamilton

You would expect someone who grew up in earthquake country to take a serious interest in the structural strength of buildings. Certainly that's the case with Gina Cody, PhD, P.Eng. Born and raised in Iran, Cody did graduate work at Concordia University, focusing on fault tolerances. She's now a principal at Construction Control Inc., a Woodbridge-based firm of consulting engineers and environmental scientists, and involved as a PEO volunteer to ensure that regulations for engineers in private practice and those working in the building industry effectively address the public interest and are fair to practitioners.



Helping build the foundation: Engineer Gina Cody examines how professional standards can address the public interest.

In her industry, Cody maintains a high profile. She's president of the Canadian Condominium Institute, chair of PEO's Professional Practice Committee and the Certificate of Authorization Review Task Force, and a member of a task group developing PEO's positions on proposals from the government's Building Regulatory Reform Advisory Group.

"After emigrating from Iran, I decided to do my thesis on earthquake engineering because it was such a neglected field," says Cody. She would also help develop an instrument to improve the seismic behaviour of structures. But first, her interest took her to rural Peru, where, with funding from the Canadian International Development Agency, she "did research on the seismic behavior of Adobe housing," which is a common

housing stock in earthquake-prone South America. She says her research indicated that new designs for such housing were required "to give people time to get out."

A family calling

Cody knew early on that engineering would be her calling. In Iran, her father operated a construction firm and ran a private high school for boys. The importance of education and hard work was instilled in the family: Her three brothers are all engineers and her sister is a dentist.

In 1978, she graduated from the Aryamehr University of Technology with a degree in structural engineering. She then moved to Montreal, where she worked and taught at Concordia's Faculty of Engineering while working first on a

master's degree and subsequently a doctorate. "When I started teaching at Concordia, the number of female students enrolled in engineering was much less than what I had experienced in Iran. There, women make up 50 per cent or more of graduates with technical degrees. Compare that with the roughly 20 per cent female enrolment in Canadian engineering schools," she says.

Reviewing the rules

A year before joining Construction Control in 1987, Cody moved to Toronto to work on amending the Ontario Building Code for the Ontario Ministry of Housing (now the Ministry of Municipal Affairs and Housing). "I spent one year there and learned a great deal about regulatory functions. That experience," she says, "gives you a heads-up start in anticipating and then interpreting government regulations."

This experience is proving to be useful as she chairs PEO's task force evaluating the Certificate of Authorization (C of A), which is the licence PEO grants to enable companies or individuals to offer or provide professional engineering services directly to the public.

"We're looking at it from the perspective of having the licence to practise and the right to a title being two separate things—with the licence being necessary to protect the public in particular situations and the title denoting having achieved a certain level of qualification," she notes. "Should the C of A be a separate licence that offers a level of protection to the public over and above the P.Eng.? Or should the P.Eng., by itself, give the right to offer services to the public? There are some who say 'yes' to the second question. But there are also some who say that it depends on whether an individual engineer is incorporated. Or whether there is professional liability insurance in place. There are many factors that the task group needs to consider. Right now, even professors with a P.Eng., who are considered to be experts in their fields, must hold a C of A if they offer an opinion to the public."

Cody is also a member of the PEO task group that is monitoring and developing positions on proposed changes to the Ontario Building Code Act. These changes would require all practitioners and businesses involved with the OBC

process (professional engineers, architects, building officials, contractors, etc.) to be registered as being "knowledgeable in their area of Building Code compliance." Registration would see individuals demonstrate "knowledge in their area of Building Code compliance" through some form of testing. The Ministry of Municipal Affairs and Housing, which is considering the proposals from its Building Regulatory Reform Advisory Group, feels that for the licensed professions, the appropriate regulatory body (i.e. PEO for professional engineers) should be responsible for the administration, integrity and transparency of the registration system for its own licensees. The task group on which Cody sits is helping determine how PEO might best be involved in implementing the proposals.

Structural integrity

As an engineer who received her undergraduate engineering education outside of Canada, Cody says she never faced

any impediments to achieving licensure here: "Engineering is probably more open in Canada than any other profession. If you talk to foreign-educated doctors and lawyers, they'll tell you they had to go through very harsh scrutiny. I know a number of people from Iran, for instance, who couldn't get into medicine in Canada. They had to go to the United States to get accredited. But to be fair, any regulatory body has to have stringent professional standards."

And it's the task of the PEO committees and task groups with which Cody's involved to recommend how professional standards for engineers in private practice and in the building industry can effectively address the public interest and be fair to practitioners. You might even describe the job as maintaining and strengthening the integrity of the profession's licensing structure as it begins to hear the first rumbles of shifting ground. Which seems like a scope of work that's all in a day's work for Gina Cody. ♦