ACEC
American Council of Engineering Companies of Tennessee

Tennessee Society of Professional Engineers

Licensure of Engineering Technology Graduates

ISSUE BRIEF

HB 2686 by Rep. Matthew Hill)
SB 2691 by and Sen. Steve Southerland

ACEC and TSPE **oppose** HB 2686/SB 2691, which authorizes engineering technology graduates to sit for the Principles and Practices of Engineering exam.

We are concerned because engineering students are taught to analyze problems, consider alternatives, and design solutions within the specific constraints of the situation. Engineering technology students are taught to implement a solution generated by a licensed professional.

Licensure of engineers in Tennessee is based on the protection of the public. This encompasses more than just implementing a design someone else prepared – it focuses on generating design alternatives that will solve the problem. Having the educational background and experience to choose the more correct alternative is crucial in that process.

ABET, the accrediting board for engineering programs in the United States, offers this explanation about the differences between engineering and engineering technology on its website ((http://www.abet.org/faqs_hs.shtml#3):

> Engineering and technology are separate but intimately related professions. Here are some of the ways they differ:
> • Engineering undergraduate programs include more mathematics work and higher level mathematics than technology programs.
> • Engineering undergraduate programs often focus on theory, while technology programs usually focus on application.
> • Once they enter the workforce, engineering graduates typically spend their time planning, while engineering technology graduates spend their time making plans work.
> • At ABET, engineering and engineering technology programs are evaluated and accredited by two separate accreditation commissions using two separate sets of accreditation criteria.
> • Graduates from engineering programs are called engineers, while graduates of technology programs are often called technologists.

Feb 1, 2010

Tennessee Engineering Center • 800 Fort Negley Boulevard • Nashville, TN 37203
615.242.2486 • Fax 615.254.1923