ANSI Committee on Education

Standardization Case Studies

ACCOMPANYING QUESTION AND ANSWER WORKSHEET

Proposed Question	How did the E2187 standard develop?
Proposed Answer	For years, Dr. Richard Gann, Ph.D., led a team at NIST who worked on developing a method for testing a cigarette's ability to ignite bedding or upholstery. "A cigarette that goes out more readily in the test is less likely to have enough energy to start a chair or bed burning," said Dr. Gann, a senior research scientist with NIST's Building and Fire Research Laboratory. Dr. Gann worked for over ten years to convince cigarette manufacturers to cooperate and agree to the type of cigarette that would pass his test. He then took his method to ASTM Committee E05 on Fire Standards. Cigarette companies who participated on Committee E05 helped to further develop the method and its documentation, which was approved and became known as E2187 in 2002.

Proposed Question	ASTM Standard E2187 is described in the case study. What aspects of this standard make it important and able to be used by cigarette manufacturing companies?
Proposed Answer	As stated in the scope, E2187 "provides a standard measure of the capability of a cigarette, positioned on one of three standard substrates, to generate sufficient heat to continue burning and thus cause ignition of bedding or upholstered furniture." This standard allows cigarette manufacturers to test the ignition propensity of their cigarettes, and ultimately reduce that propensity. In addition, a statement on precision in the standard allows potential users of the test method to assess in general terms its usefulness in proposed applications. By conforming to E2187, cigarette manufacturers can produce "fire-safe" cigarettes which may help prevent many of the 14,000 fires started by smoking material each year.

Proposed Question??	Why do legislatures use voluntary consensus standards in legislation? What are the benefits of this approach? How do these voluntary standards become mandatory when laws are passed? (Think outside the article and external research may be helpful.)
Proposed Answer	In 1995, the National Technology Transfer and Advancement Act was passed which deals with standards in legislation. The law "directs that all Federal agencies and departments shall use technical standards that

	are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments." According to the National Research Council (NRC), federal agencies adopt voluntary consensus standards because they are an "effective means of securing public interests." The NRC also reports that voluntary standards-setting is faster than regulatory standards-setting. In a case such as the "fire-safe" cigarette, the voluntary consensus Standard E2187 was initially incorporated into the New York State law. It became mandatory for cigarette manufacturers in New York to comply with the standard. Other states followed their lead, and have cited E2187 in their state legislation of "fire-safe" cigarette laws.