The Truth About Standards

Avoiding misconceptions about product standards & certification bodies

By Amy Reichel

It is easy to be swayed by the erroneous notion that if the majority of people share a particular belief, it must be true. This phenomenon, which we all have encountered at one point or another, is known as a consensus fallacy or bandwagon fallacy.

Among the many things I have heard, but never thought to question, are the assertions that the Great Wall of China is visible from the moon, that toilets flush in opposite directions in the Northern and Southern hemispheres, and that dropping a penny from the top of a tall building is a surefire way to kill a person standing on the street below.

Having no immediate reason to mistrust the source, I believed these assertions, and was surprised to learn that none of them are entirely accurate (but I have to admit I doubted the toilet flushing one the most). As it turns out, the Great Wall of China is only 30 ft wide and almost identical in color to its surroundings, making it barely visible to the naked eye while orbiting Earth, even in perfect visibility conditions. The direction in which a toilet flushes has everything to do with which way the jets are pointing and nothing to do with the Earth’s hemispheres. Due to its light weight and the tumbling that occurs as it falls, air resistance would keep a penny from gathering much speed before it reaches its terminal velocity. That means a penny dropped from the top of the Eiffel Tower might hurt a person if it hit him or her on the head, but it probably would not kill the person.

Since joining the Water Quality Assn. (WQA) staff four years ago, I have consistently observed the presence of one major misconception held by many in the water treatment industry.

“A lot of our industry’s stakeholders, from water regulators to equipment manufacturers and dealers, are under the mistaken impression that only NSF can certify products to NSF/ANSI standards,” said Tom Spoden, product certification director for WQA. “It can sometimes be tough to get them to understand that the name on the standard has nothing to do with who can certify to it.”

As long as certification bodies or legal entities have the necessary accreditation to do so, they can test and certify products to whichever standards they choose. That means certification bodies like WQA and UL can, and do, offer testing and certification of water treatment products to NSF-published standards. Likewise, NSF can test and certify products to WQA and UL standards, as long as those standards fall under its approved scope. In order to clear up any confusion, let’s review a few key aspects of product certification.

What Is a Standard?

As defined in ISO/IEC Guide 2:2004, a standard is a document, established by consensus, that provides rules, guidelines or characteristics for activities or their results. The American National Standards Institute (ANSI) facilitates the development of these documents by standards developing organizations (SDOs). Some SDOs serving
the water treatment industry include WQA, NSF, UL, the American Society of Plumbing Engineers and the International Association of Plumbing and Mechanical Officials (IAPMO).

How Does an SDO Create a Standard?
Standards are developed through the involvement of stakeholders who are directly and materially affected by the scope of the standard. This process ensures balanced input from industry representatives, public health/regulatory officials and users/consumer representatives. WQA, for example, participates in nearly all SDO standard development related to the drinking water industry.

Who Can Use a Standard?
After a standard is published, it becomes public domain and can be used by anyone. In order to sell products in certain markets, many companies are required to demonstrate compliance with one or more standards through certification by an accredited certification body. ANSI and the Standards Council of Canada are the two main accreditors of certification bodies. They provide accreditation in accordance with the strict guidelines of ISO 17065, which contains requirements for bodies operating product certification systems for product certification programs. This ensures that each certification body produces certifications of equal merit.

“All accredited certification bodies go through the same internal and external audits to make sure that their programs [are] fit to test and certify products covered by the specific standards that fall under [the] certification bodies’ scope,” Spoden said. “The organization that publishes a particular standard—the SDO—is not necessarily more qualified to certify products to its own standards, nor is it necessarily the fastest or most cost-effective option.”

In conclusion, the misconception about SDOs and certification bodies prevents some companies from pursuing all of their available options for product certification. The choices are many, including WQA, IAPMO, UL, the Canadian Standards Association Group and NSF. WQP

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