

To Be Emphatically Clear—The Devil (and the Standard) is in the Details

Bill Bradley



I read with great interest Buzz Maiuri's article in the September 2013 issue of **Gear Technology**—“How Gear Standards are Written.”

I feel Buzz did a good job of outlining the process. There are a couple of things where I would like to add emphasis. The committee membership and the ballot comment resolution process are extremely important for developing good standards.

The committee membership needs to be made up of competent and knowledgeable individuals that represent all aspects and views that are covered by the scope of the proposed standard. They must be able to find compromise. If not, the standard may end up being biased to a segment of industry, a company, or misleading in its application. The committee membership is perceived as being “the experts” in the technology and, therefore, are not generally challenged when a committee draft

is balloted within the whole organization—be it ANSI/AGMA or ISO.

Also, the ballot comment resolution process is extremely important. The AGMA procedures require that all comments be addressed and resolved by the developing committee. An extremely important AGMA requirement is that if the resolution of a comment results in a substantive change in the standard, the draft must be re-balloted at either the committee comment or general ballot stage. The procedures require a 75 percent approval of all those voting at each stage. These requirements help assure the development of a consensus standard.

The ISO ballot comment resolution requirements are different. The ISO/IEC directives allow for the resolution of comments to be proposed by the Secretariat “in consultation with the

How Gear Standards are Written

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Several AGMA committees require

prize proven, reliable information.

Information sheets, however, often contain material that is still being tested and proven. Information sheets are also a forum for setting new materials and the industry can benefit from them and the use of them.

Each member of the TDEC is also the chairman to several of the technical committees. As the chairman of the committee, he can evaluate new projects and prepare proposals to the TDEC for the committee, as well as submit progress reports, committee standards and committee changes to the TDEC.

The technical committees are responsible for the timely development, maintenance and theoretical accuracy of the technical publications of AGMA. Each committee has a chairman and vice chairman.

Several of the technical committees also serve as the United Nations Technical Advisory Group programs within ISO TC 60 and ISO TC 14 (International Organization for Standardization—Technical Committee). The scope for ISO TC 60 is standards for manufacturing terminals, nominal dimensions, tolerances and tools for manufacturing and control. The scope for ISO TC 14 is standards for machinery and field equipment, such as machines, their keys and keyways, splines and serrations and their accessories such as couplings, flanges, etc.

AGMA is the secretary of ISO TC 60 and provides oversight of all the standard programs that are undertaken.

All AGMA standards have the status of being American National Standards as defined by the American National Standards Institute (ANSI). To maintain this status, AGMA's Technical Division operations are audited by ANSI every five years to ensure compliance with our policies and practices, and with ANSI's requirements. The next audit will be in 2014.

There are currently 53 AGMA standards and 30 information sheets.

Information sheets are similar to standards, but are different in a few major ways. ANSI/AGMA standards com-

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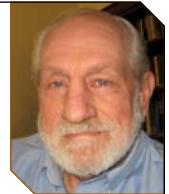
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Chair of the technical committee or sub-committee and, if necessary, the project leader, for proceeding with the project." This can result in unilateral resolutions. The directives require committee resolution of comments only if two or more participating countries file a timely objection (within two months) to the leadership's proposals. Also, the directives only require two-thirds acceptance and less than one-fourth rejection of participating countries to become an ISO or IEC standard. In addition, in a 2013 directive change, committee draft ballots may be skipped if a committee so decides on the recommendation of the developing working group. Although there is some rhetoric paid to developing consensus, it is easier to develop an ISO

or IEC standard than an ANSI/AGMA standard—especially if there is no policing of the decisions by committee leadership. (*Note: While the U.S. [AGMA] has been the Secretariat of the ISO/TC60 Committee for Gears, all ballot comments on TC60 standards, by agreement in 1994, have been resolved by the developing working group (in order) to promote consensus.*)

One last comment is that a standard should be short in volume, with specific requirements, (and shall) contain few recommendations (should doing so) tend to make compliance difficult to discern. The recommendations or textbook statements belong in AGMA Information Sheets or ISO Technical Reports.

Bill Bradley, a longtime, distinguished AGMA member—and former vice president of the AGMA Technical Division—was in 2006 awarded AGMA's Lifetime Achievement Award. He has, over the years, also graciously volunteered his time and expertise to serve as a *Gear Technology* technical editor.



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