



Raising the Standards

Dr. Phil Terry, Chief Metallurgist
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One of the original purposes of the AGMA was to create standards to specify and manufacture gear products. That work is carried out by the AGMA Technical Division, which is currently composed of 25 active committees. The division deals with a wide variety of subjects, including gear accuracy, cutting tools, gear rating and plastic and powder metallurgy gears.

The Technical Division is overseen by the Technical Division Executive Committee (TDEC), of which I am the current chairman. The other members of the committee are John B. Amendola, Sr. of Artec Machine Systems; Terrance Klaves of Milwaukee Gear Company; Robert F. Wasilewski of Arrow Gear Company; Thomas J. Maiuri of The Gleason Works; Dan Phebus of Fairfield Manufacturing Co. and until recently, James W. Mahan of Lovejoy, Inc (Jim retired after the May 2010 TDEC meeting and Todd Schatzka of Rexnord will be joining the committee).

The TDEC supervises the development and maintenance of AGMA standards and other publications. There are currently 55 AGMA standards and 31 information sheets. In 2009, AGMA released five new standards dealing with marine drive materials, enclosed gear drive components and flexible coupling design.

Standards developed through the Technical Division are more than just specifications. They are also valuable tools that are used by designers, gear manufacturers and—just as importantly—users of power transmission products. For example, the Computer Programming Committee is in the final stages of development of the next version of AGMA's *Gear Rating Suite* software. We are proud of the acceptance this valuable engineering tool has received by engineers worldwide. Besides performing load capacity calculations in strict adherence to the AGMA and ISO standards, the next version will contain a graphical output feature, so the user can actually see the meshing of the gears being designed.



The Metallurgy & Materials Committee is working on a revision to AGMA 2007 on surface temper etch inspection. This standard, which has been adopted by ISO, is used literally throughout the world to define metallurgical quality requirements.

The Bevel Gearing Committee has undertaken the project to update AGMA 2008, the standard on assembling bevel gears. This document has gained wide use by gear manufacturers and plant

maintenance personnel alike to assist in performing these critical assembly procedures.

Many of our committees have the responsibility to serve as the United States Technical Advisory Groups to programs within ISO TC 60. Participating on these committees gives members an opportunity to stay abreast of developments on an international level that can impact their companies.

AGMA is the secretariat of ISO TC 60 and procedurally oversees all the standards programs that are undertaken. It's a two-way street – many ISO standards get their roots from AGMA standards. Examples include the standards for cylindrical gear accuracy and bevel gear geometry.

All AGMA standards have the status of being American National Standards as defined by the American National Standards Institute. To maintain this status, AGMA's Technical Division operations are audited by ANSI every five years to ensure compliance with our own Policy and Practices, and with ANSI's requirements.

The audit consists of answering the question, "Do you do what you say you do?" Five standards are chosen at random, and records that we retain during the development process are reviewed. This includes the minutes of all committee meetings, ballot results and necessary approvals along the way. The audit also requires us to meet ANSI's Essential Requirements.

The audit was conducted last summer, and as a result, changes to our internal procedures will be required. The

most significant change that is being proposed at this time will be in the composition of our consensus body—those who have the opportunity to receive the General Ballot of all AGMA standards, to review the contents of new standards, provide comments, and vote on its acceptance.

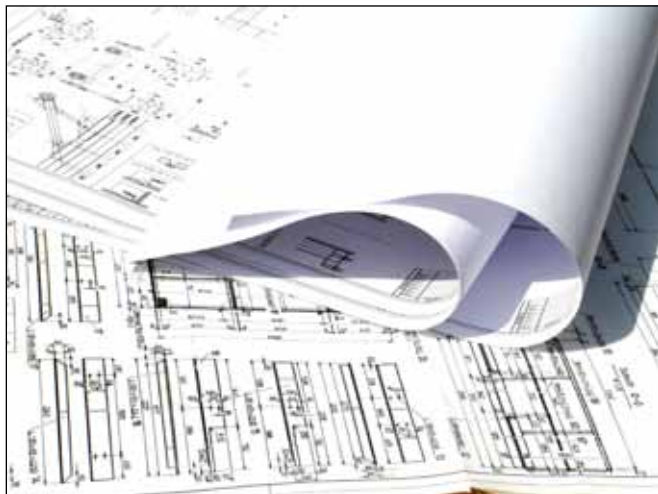
Since its inception, the opportunity to participate in the General Ballot of AGMA standards has been a unique benefit of membership in the association. However, it is recognized that in an industry such as ours, with companies having a broad range of interest in the types of products they produce and the many various application sectors they serve, that not all standards are of interest to, or are applicable, to the products produced by all our members.

After extensive review and discussion of our current balloting process, a revision is being proposed that redefines the composition of the consensus body. For many years the recipients of a General Ballot have been the official representatives of all AGMA member companies. The consensus body would now be configured to capture companies within the association that express an interest in reviewing and voting on a new standard's project or on the reaffirmation of an existing standard. A survey will be taken prior to launching a General Ballot to identify these companies that will then comprise the consensus body for that particular standard.

The standards AGMA produces could not exist without the help and expertise from member companies, and I encourage all in the industry to consider participation. Being involved in the standards development process gives you the opportunity to learn while at the same time, contributing to the industry. It also provides you with the opportunity to study the art of gearing at a much more in-depth and technical level than you would otherwise have. Finally, participation allows you to stay abreast of what's going on in the industry, both domestically and internationally.

Technical committee participation is a value-added proposition—with immediate payback to your organization. ⚙️

Sincerely,
 Dr. Phil Terry, Chief Metallurgist
 Lufkin Industries, Inc.



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