

**FOR IMMEDIATE RELEASE**

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## **MLB, MLBPA ADOPT RECOMMENDATIONS OF SAFETY AND HEALTH ADVISORY COMMITTEE**

LAS VEGAS – Major League Baseball and the Major League Baseball Players Association jointly announced today that they have adopted the nine recommendations made by the Safety and Health Advisory Committee, which investigated the sport's broken bat incidents. The recommendations will be in effect for the 2009 season.

In July, the Safety and Health Advisory Committee formed an interdisciplinary team of external experts in such areas as wood science, industrial wood product certification, statistical analysis and laboratory and field testing of baseball bats. The experts were asked to develop a series of recommendations that would reduce the frequency of multiple-piece broken bats.

Among the steps taken by the experts were on-site visits to five bat manufacturers, during which they met with company officials and observed their manufacturing quality control processes; video review of hundreds of multi-piece bat failures; administration of a survey to all MLB-approved bat suppliers, players and equipment managers; and lab testing both of bats and maple dowels.

From July-September 2008, 2,232 bats broke during Major League games – including both cracked bats that stayed in one piece and bats that broke into multiple pieces – and were subsequently collected and submitted to the experts for analysis. Among the 2,232 broken bats, 756 broke into multiple pieces. The two primary modes for the multi-piece breaks were due to poor-quality “slope of grain” and/or ruptures caused by excessive bending. Slope of grain is a term used in the wood industry to quantify how straight the grain is along the edge (radial) and flat (tangential) faces of a piece of wood. As the straightness of the grain decreases, the durability of the bat decreases.

The study by the Safety and Health Advisory Committee concluded that among the 756 multi-piece broken bats, maple bats were three times more likely than ash bats to break into two or more pieces. The failed bats showed that the maple bats were four times more likely to have broken due to poor-quality slope of grain than the ash bats failing in the same manner.

To address the slope of grain issue, the team of experts compiled nine recommendations to reduce the frequency of multi-piece bat failures, all of which have been adopted for 2009:

1. All bats must conform to slope of grain wood grading requirements which apply to the 2/3 length of the billet that will constitute the handle and taper regions of the bat. All manufacturers must identify and grade the handle end prior to production of the bat to ensure that its slope of grain satisfies the grading requirement.
2. All manufacturers must place an ink dot on the tangential face of the handle of sugar maple and yellow birch bats before finishing. Placing an ink dot enables a person to easily view the slope of grain of the wood.
3. The orientation of the hitting surface on sugar maple and maple bats should be rotated 90° (one quarter turn of the bat). The edge grain in maple that is currently used as the hitting surface is the weaker of the two

choices. To facilitate such a change in the hitting surface, manufacturers must rotate the logos they place on these bats by 90°.

4. Handles of sugar maple and yellow birch bats must be natural or clear finish to allow for inspection of the slope of grain in the handles.
5. Manufacturers must implement a method of tracking each bat they supply (e.g., serial number) so that each can be linked back to the manufacturer's production records.
6. Representatives of each authorized manufacturer should be required to participate in an MLB-sponsored workshop on the engineering properties and grading practices of wood as they relate to the manufacture of solid-wood baseball bats.
7. Manufacturers should be visited on a regular basis by MLB or its designated representatives to audit each company's manufacturing processes and recordkeeping with respect to bat traceability.
8. Audits should be randomly conducted of bats by MLB or its designated representatives at the ball parks to ensure that the new bat requirements are being followed.
9. A formalized third-party bat certification and quality control program should be established to certify new suppliers, approve new species of wood, provide training and education to bat manufactures, and address issues of non-compliance.

The team of experts believes that implementation of these recommendations will have an immediate impact in the 2009 season on reducing the frequency of bats breaking and the number of bats breaking into multiple pieces.

"I am hopeful that the implementation of these recommendations will do much to resolve the issues posed by the broken bat episodes we saw this season, most importantly to assure the safety of our on-field personnel and our fans," said Baseball Commissioner Allan H. (Bud) Selig. "I thank the Safety and Health Advisory Committee and their experts for their extensive work on this essential task."

Major League Baseball Players Association Executive Director Donald Fehr said: "We are pleased that we were able to work through this issue with MLB, and we appreciate very much all of the hard work put in by everyone involved in this effort."

The research and analysis by the team of experts will continue during the off-season and throughout the 2009 regular season, including the collection and review of additional data. The experts will examine potential ways to reduce the incidents of multi-piece failures even further, which may include studying wood drying methods, moisture content, and the durability of specific bat models. In addition, the experts will advise the Committee on the development and implementation of a third-party bat certification and audit program.

To defray the substantial costs that the Committee has incurred to conduct its investigation of bat durability, the Office of the Commissioner has increased the annual administrative fee for supplier authorization from \$5,000 per supplier in 2008 to \$10,000 per supplier in 2009. Additionally, the Office of the Commissioner has increased the required minimum limits for authorized bat suppliers of Umbrella Liability Insurance from \$5 million to \$10 million for Each Occurrence and General Aggregate.

Information on the Safety and Health Advisory Committee and biographical information on its team of interdisciplinary experts is appended to this press release.

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- **SAFETY AND HEALTH ADVISORY COMMITTEE:** Major League Baseball and club representatives are Sandy Alderson (San Diego Padres); Paul Dolan (Cleveland Indians); Joe Garagiola, Jr. (MLB); Dan Halem (MLB); Gerry Hunsicker (Tampa Bay Rays); Walt Jocketty (Cincinnati Reds); Howard Smith (MLB); and Dean Taylor (Kansas City Royals). Major League Baseball Players Association representatives are Phil Bradley (MLBPA); John Buck (Kansas City Royals); Aaron Heilman (New York Mets); Bob Lenaghan (MLBPA); Gene Orza (MLBPA); Steve Rogers (MLBPA); Michael Weiner (MLBPA); and Richard White (MLBPA).
- The **Forest Products Laboratory** ("FPL") of the **USDA Forest Service**, based in Wisconsin, is the U.S. government's primary research facility for wood products. The FPL is an unbiased technical authority on wood science and use, and it participates in many partnerships with universities, industries, and other government agencies.

David E. Kretschmann is Research General Engineer with the FPL and has worked at the FPL for over 20 years. His research goals focus on conducting research that characterizes the impact of management practices and the resulting wood formed (concentrating on cellular characteristics such as micro fibril angle, cell wall, early wood and late wood) on wood quality of commercial softwoods and hardwood lumber properties. He also develops and implements improved quality control procedures to assure claimed properties for visually and mechanically graded structural lumber are monitored and maintained. Finally, Mr. Kretschmann actively develops methods to improve procedures for structural lumber grading and property assignment. He is a registered professional engineer in the Properties of Wood, Wood Based Materials and Structures research work unit at the USDA Forest Products Laboratory. Since 1987 he has worked for the USDA Forest Products Laboratory in the area of In-grade testing, juvenile wood research, and fundamental property relationships. Mr. Kretschmann has been lead or co-author of over 60 articles. He was a co-recipient of two George G. Marra award for excellence in research and writing and the prestigious 2005 ASTM International L.J. Markwardt award recipient. Mr. Kretschmann is an active member of the American Society for Testing and Material, the Society of Wood Science and Technology, and the Forest Products Society. He serves as the chair of the ASTM D07.02.01 section Solid Sawn Lumber and Vice Chair of ASTM D07 committee on Wood. He serves at the USDA technical representative to the American Lumber Standard Committee and is the technical advisor for the ALSC Board of Review. He received a BS (1984) and MS (1987) degree in Engineering Mechanics from the University of Wisconsin-Madison.

- **Dr. Carl N. Morris** is Professor of Statistics at Harvard University. Professor Morris received his B.S. in Aeronautical Engineering in 1960 at Cal Tech and a PhD from Stanford in 1966. He was Assistant Prof. of Mathematics at U.C. Santa Cruz before moving in 1967 to the RAND Corporation in Santa Monica. In 1972 he was one of the founding faculty of RAND's Graduate School for Public Policy. During his RAND years, Carl was Visiting Lecturer at Harvard (1970) and at Stanford (1975). He was instrumental in the design and analysis of the national Health Insurance Experiment at Rand. In 1978, he joined the University of Texas at Austin to be Professor of Statistics in the Mathematics Department and to become the founding Director of UT's Center for Statistical Science. He moved in 1990 to Harvard with a split appointment as Professor of Statistics in FAS and as a Professor in HMS at its Department of Health Care Policy. After spending 1993-1994 at Stanford's Center for Advanced Study in Behavioral Sciences, Prof. Morris became Chair the Statistics Department until 2000. Prof. Morris was Editor of Theory and Methods, *Journal of the American Statistical Association* (1983-1985) and he was Executive Editor of *Statistical Science* (1989-1991). He is well known for his development of parametric empirical Bayes via Stein estimation with Prof. Bradley Efron of Stanford, and for his continuing research in the theory and applications of parametric hierarchical modeling. His work on natural exponential families with quadratic variance functions was recognized as a statistical breakthrough (Volume III on *Breakthroughs in Statistics*, Springer 1997). He also is recognized for developing statistical design and analytical methods for public policy experiments, for bringing multi-level models to hospital profiling, and for sports research.

- **Dr. James A. Sherwood** is Professor of Mechanical Engineering at the University of Massachusetts at Lowell, where he is also the director of the Baseball Research Center and co-director of the Advanced Composite Materials and Textiles Research Lab. He received his Bachelor (1976) and Masters (1977) degrees in Engineering Mechanics and his PhD (1987) in Aerospace Engineering and Engineering Mechanics from the University of Cincinnati. Before entering academia, he was a stress engineer at Pratt and Whitney Aircraft in Connecticut and with B.F. Goodrich in Ohio. He is a registered Professional Engineer in Ohio and New Hampshire. He has been a visiting scientist with the US Air Force Flight Dynamics and Materials Labs at Wright-Patterson AFB doing research on landing gear and composite materials. His research in the application of composite materials for crashworthiness of lightweight cars led to his interest in studying bat/ball collisions in 1996. He works with the ASTM (American Society for Testing and Materials), NCAA, National Federation of High Schools and Major League Baseball in the development and application of test methods for bats and balls and has worked with the Baseball Hall of Fame in a live broadcast of the physics of baseball. His baseball research has been highlighted in TV programs on PBS, National Geographic and the Discovery Channel and local and national news features. He is currently exploring the extension of his expertise in the science of baseball bats to study the performance of Little League bats and is working with the Japanese High School Federation and the NCAA to develop a world-wide nonwood bat performance standard.
- **Timberco Inc. (“TECO”)**, based in Sun Prairie, Wisconsin, is the largest privately-held structural wood panel certification company in North America. TECO offers accredited certification and testing services for a wide variety of wood products, as well as structural wood adhesives. Founded in 1933, the company is a recognized certification agency with clients in North and South America, as well as Europe. TECO operates testing laboratories in Oregon and Louisiana, and TECO-certified wood products are used in the U.S., Canada, and Japan. TECO has 75 years of experience and expertise in wood science and engineering, wood product testing, standards development, and certification of wood products.

Scott Drake, TECO's Vice President of Operations, is leading his company's efforts with MLB. Mr. Drake joined TECO in 2002 after receiving an MBA in Operations Management from the University of Wisconsin – Madison. He also holds a BS degree in Wood Science from Michigan Technological University, and is recognized by the American Society for Quality as a Certified Manager of Quality and Organizational Excellence.