CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Chapter II

[CPSC Docket No. CPSC-2011-__________]

Table Saw Blade Contact Injuries; Advance Notice of Proposed Rulemaking; Request for Comments and Information

Information

AGENCY: Consumer Product Safety Commission.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The Consumer Product Safety Commission ("CPSC" or "Commission" or "we") is considering whether a new performance safety standard is needed to address an unreasonable risk of injury associated with table saws. We are conducting this proceeding under the authority of the Consumer Product Safety Act ("CPSA"), 15 U.S.C. 2051-2084. This advance notice of proposed rulemaking ("ANPR") invites written comments from interested persons concerning the risk of injury associated with table saw blade contact, the regulatory alternatives discussed in this notice, other possible means to address this risk, and the economic impacts of the various alternatives. We also invite interested persons to submit an existing standard, or a statement of intent to modify or develop a voluntary standard, to address the risks of injury described in this ANPR.

DATES: Written comments and submissions in response to this notice must be received by [insert date that is 60 days after publication in the FEDERAL REGISTER].
Since its initial review of table saw blade contact injuries, based on data from NEISS, CPSC staff found that the estimated number of emergency department-treated injuries associated with table saws averaged 36,400 per year from 2001 to 2008. The trend analysis conducted by CPSC staff of the annual estimates for 2001 to 2008, indicated that the number of all saw-related injuries (including table saws, band and radial saws, handheld saws, and saws not specified) was steady during this time.

CPSC staff conducted a follow-up special study on stationary saw-related injuries between January 2007 to December 2008, to gather more accurate estimates on table saw injuries and hazard patterns related to table saw injuries. The special study conducted follow-up interviews on emergency room-treated table saw incidents that were reported through NEISS. The special study allowed more precise table saw injury estimates to be computed for 2007 (38,300 injuries), and 2008 (41,200 injuries). Of the 79,500 total emergency department-treated injuries associated with table saws in 2007 and 2008, an estimated 76,100 injuries were sustained by operators of the table saws. Of the injuries to table saw operators, an estimated 66,900 injuries (88%) involved blade contact, which is the pattern of addressable hazards that this ANPR seeks to address.

CPSC staff estimates that there were approximately 66,900 emergency room-treated injuries involving table saw operator blade contact in 2007 and 2008. Of the 66,900 emergency room-treated injuries involving table saw operator blade contact in 2007 and 2008, the majority (68.5%) of the victims were between the ages of 15 to 64 years old, and 31 percent were 65 years old or older. Among the operator blade contact injuries, laceration was the most frequent (65.9%) form of injury, followed by fractures (12.4%), amputation (12.0%), and avulsion
(8.5%). The rate of hospitalization was 7.1 percent, compared to an average 4 percent rate of hospitalization for all consumer products reported through the NEISS system. Because CPSC staff determined that the injury trend associated with all saws has been relatively stable from 2001 and 2008, and they concluded that the results of the special study represented the most accurate estimates available, CPSC staff relied on the data from the special study for 2007 and 2008 to summarize blade contact injuries and their associated hazard patterns.

Of the 66,900 emergency room-treated injuries involving table saw operator blade contact in 2007 and 2008, approximately 20,700 (30.9%) of the injuries occurred on table saws where a blade guard was in use. Approximately 44,500 (66.5%) of the injuries occurred on table saws that did not have a blade guard attached. The most common reason for absence of the blade guard was removal by the consumer (75.0%). An estimated 23,800 injuries (35.5%) occurred as a result of kickback of the material, including scenarios where kickback of the material caused the operator’s hand to be pulled into the blade, resulting in a laceration injury or amputation. Of the 23,800 blade contact injuries that occurred as a result of kickback, lacerations were the most frequent (61.2%) form of injury followed by amputations (15.6%), fractures (14.2%), and avulsions (6.5%). The rate of hospitalization was 9.0 percent.

Of the 66,900 emergency room-treated injuries involving table saw operator blade contact in 2007 and 2008, an estimated 39,600 injuries (59.2%) did not occur as a result of kickback of the material. Non-kickback injury scenarios included situations caused by a lapse in attention of the operator, such as reaching over the blade to retrieve a cut piece or otherwise not being aware of the blade during a cut. Of the 39,600 blade contact injuries that did not occur as a result of kickback, lacerations were the most frequent (69.4%) form of injury, followed by
fractures (11.0%), amputations (9.5%), and avulsions (9.5%). The rate of hospitalization was 5.0 percent. CPSC staff did not find sufficient information regarding whether kickback caused operator contact with the blade in approximately 3,500 of the 66,900 operator blade contact injuries.

F. Economic Considerations

The Commission's Injury Cost Model ("ICM") uses empirically derived relationships between emergency department injuries estimated through NEISS and injuries treated in other settings (e.g., doctor’s offices, clinics) to estimate the number of injuries treated outside hospital emergency departments. Based on CPSC’s 2007–2008 special study, staff estimated that approximately 33,450 emergency department–treated blade contact injuries occurred annually over the 2-year period 2007–2008. From these 33,450 annual injuries, the ICM projects an annual total of 67,300 medically treated blade contact injuries with an associated injury cost of approximately $2.36 billion per year. CPSC staff determined that deaths resulting from blade contact during table saw use are rare and appear to be the result of secondary effects of the injuries (e.g., heart attack) rather than the injuries themselves. Accordingly economic costs from deaths have been excluded.

CPSC staff’s preliminary review showed that societal costs per blade contact injury amount to approximately $35,000. This includes costs for medical treatment, lost time from work, product liability litigation, and pain and suffering. The relatively high societal costs, compared to the $22,000 average cost for all medically treated consumer product related injuries, reflect the high costs associated with amputations and the relatively high hospitalization rate associated with these injuries.
CPSC staff’s preliminary review also showed that the expected present value of the societal costs of blade contact injuries over the life of a table saw is substantial. Therefore, an effective performance-based table saw standard potentially could result in significant reductions in the injury costs associated with blade contact. However, current systems designed to address blade contact injuries on table saws appear to be costly and could substantially increase the retail cost of table saws, especially among the least expensive bench saws.

G. Existing Standards

The current U.S. voluntary consensus standard for table saws is the seventh edition of UL 987, Stationary and Fixed Electric Tools. Underwriters Laboratories Inc. ("UL") published this standard in 1971, and has revised it several times. The original requirement for table saw guarding specified a complete guard that consisted of a hood, a spreader, and some type of anti-kickback device. The requirement further specified that the guard hood completely enclose the sides and top portion of the saw blade above the table and that the guard automatically adjust to the thickness of the workpiece. A blade guard that met this requirement was typically a hinged, rectangular piece of clear plastic.

The sixth edition of UL 987, published in January 2005, added design and performance requirements for a riving knife and performance requirements for anti-kickback devices. This revision essentially required new table saws to employ a permanent riving knife that was adjustable for all table saw operations. The requirement also allowed for riving knife/spreader combination units, where the riving knife could be used as the attachment point for a blade guard during through cuts. The effective date for the riving knife requirement is January 31, 2014, for