

## Consumer Product Safety Commission

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which is the subject of a consumer product safety rule between the date of issuance of the rule and its effective date at a rate that is significantly greater than the rate at which such product was produced or imported during a base period prescribed by the Consumer Product Safety Commission.

(b) *Prohibited acts.* Stockpiling of power lawn mowers that do not comply with this subpart A of part 1205 at a rate that exceeds by 20% the rate at which the product was produced or imported during the base period described in paragraph (c) of this section is prohibited.

(c) *Base period.* The base period for power lawn mowers is, at the option of each manufacturer or importer, any period of 365 consecutive days beginning on or after September 1, 1971, and ending on or before August 31, 1978.

### § 1205.8 Findings.

(a) *General.* In order to issue a rule such as part 1205, the Consumer Product Safety Act requires the Commission to consider and make appropriate findings with respect to a number of topics. These findings are discussed below.

(b) *The degree and nature of the risk of injury part 1205 is designed to eliminate or reduce.* (1) The Commission estimates that there are approximately 77,000 injuries to consumers each year caused by contact with the blades of power lawn mowers. From 1977 data, the Commission estimates that each year there are approximately 7,300 finger amputations, 2,600 toe amputations, 2,400 avulsions (the tearing of flesh or a body part), 11,450 fractures, 51,400 lacerations, and 2,300 contusions. Among the lacerations and avulsions, 35,800 were to hands and fingers and 18,000 were to toes and feet. The estimated costs caused by these injuries are \$253 million, not counting any monetary damages for pain and suffering. These injuries are caused when consumers accidentally contact the blade, either inadvertently while in the vicinity of the mower, or while intentionally performing some task which they erroneously believe will not bring their hand or foot into the path of the blade.

(2) Part 1205 is expected to eliminate or reduce the severity of about 60,000

blade contact injuries per year, or 77% of all such injuries. The Commission estimates that if all mowers had been in compliance with the standard in 1977, about 6,800 finger amputations, 1,500 toe amputations, 11,000 fractures, 1,800 avulsions, 38,400 lacerations, and several hundred contusions would not have occurred. Of the lacerations and avulsions, 28,300 were finger injuries and 9,400 were toe injuries.

(c) *Consumer products subject to the rule.* The products subject to this standard are walk-behind power mowers. Power mowers with rigid or semi-rigid rotary blades are subject to all the provisions of the standard while reel-type and rotary mowers are subject to the labeling requirements. Mowers that in combination have engines of 8 hp or greater, weigh 200 lb or more, and have a cutting width of 30 in or more are excluded from the standard. The Commission estimates that at least 98% of the total annual market (by unit volume) for walk-behind mowers will be affected by the standard, and the Commission estimates that in 1978 this market was 5.4 million units.

(d) *Need of the public for the products subject to the rule.* The Commission finds that the public need for walk-behind power mowers, which provide a relatively quick and effective way to cut grass, is substantial. Riding mowers, lawn and garden tractors, hand reel mowers, trimmers and edgers, and sickle-bar mowers also provide grass-cutting services, but walk-behind power rotary mowers are by far the most commonly used devices for maintaining household lawns. There are no devices that can completely substitute for walk-behind power mowers as a group, since they have applications for which other products are not as suitable. Each type of walk-behind power mower has individual properties which meet public needs, although one type of walk-behind is often an acceptable substitute for another. The newly developed monofilament line mower is not included within the scope of the standard and could be a substitute for mowers using rigid or semi-rigid blades under some conditions.

(e) *Probable effect of the rule upon the utility of the product.* (1) The Commission finds that the probable overall effect of the standard on the utility of mowers should be to increase their utility. In the first place, consumers are likely to experience an increased sense of security from having a safer mower. A study of brake-clutch mowers conducted by the Federal Supply Service (GSA) shows that almost all users appreciated the safety features on brake-clutch mowers. In addition, by releasing the blade control and stopping the blade, the operator can then travel over gravel or other surfaces without fear of thrown objects or of the blade striking objects that might damage the mower. Brake-clutch type mowers would also give an increase in utility by virtue of enabling the operator to use the clutch to prevent stalling when the mower bogs down in heavy grass. On the other hand, there may be some minor adverse effects on utility caused by some aspects of complying mowers. For example, in very heavy mowing conditions, there may be some difficulty in engaging the blade in a blade-clutch mower. (However, mowers that are currently on the market that are not equipped with a blade clutch may have difficulty in starting the engine in heavy grass.) Complying mowers may require slightly more time and a few additional actions to operate. Since complying mowers may have more electrical and mechanical parts than current mowers, they may weigh more and require more maintenance than current mowers. No significant increase in mowing time is expected if a brake-clutch device is used to comply with the standard since each engagement of the blade would require only a few seconds. The amount of additional time and expense required for maintenance, if any, will be dependent on the design solution used. Such disutilities are expected to be slight and to be more than balanced by the increased sense of security consumers are likely to experience from having a safer mower.

(2) During the development of the rule, questions were raised about whether changes in the shields necessitated by the foot probe requirements would adversely affect utility by caus-

ing mowers to be hard to push in grass or to be unable to mow close to walls. At the time of issuance of this rule, mowers are available that will pass a 360° foot probe and others are available that will pass rear and side foot probing without any significant loss of utility caused by shielding. Therefore, the Commission concludes that this requirement will not adversely affect the utility of mowers. Mowers with swing-over handles, however, may be more difficult to design in this regard, since 120° at each end of the mower are subject to the foot probe requirement. However, since mowers meeting this requirement have already been built without apparent loss of utility, the Commission concludes that shielding can be designed so that there should be no loss of utility even for mowers with swing-over handles.

(3) As required by section 9(b) of the CPSA, the Commission, in considering the issues involved in issuing a power lawn mower safety standard, has considered and taken into account the special needs of elderly and handicapped persons to determine the extent to which such persons may be adversely affected by the rule. The Commission has determined that there will be no significant adverse effect on such persons as a result of this part 1205. In the first place, the rule can affect only those persons who are physically capable of using a power lawn mower. None of the rule's provisions will make it more difficult to operate a mower that complies with the standard. On the contrary, complying mowers should be easier to use because the need for manually restarting the mower will be less and because, if the mower uses a brake-clutch to comply with the blade control requirement, use of the brake-clutch can reduce the tendency of the engine to stall in heavy grass. Although a person's ability to hold a device such as a blade control for a long period of time will decline with age, the force required to hold the blade control can be made low enough that it will not be a problem during the length of time that it takes for consumers to mow a lawn.

(4) After considering the possible adverse effects on mowers that could be caused by the standard and balancing

them against the increase in utility that is expected, the Commission concludes that, for a typical consumer, the increases in utility should more than offset any decreases.

(f) *Probable effect of the rule upon the cost of the product.* The Commission estimates that the retail price impact of the standard will be about \$35 for the average walk-behind mower. Based on an average useful mower-life of about 8 years, the additional annual cost to the purchaser is expected to average about \$4.40. The probable effect of the standard will differ on the various types of mowers within its scope. Percentage increases in price will vary from about a 7 percent increase for power-restart self-propelled mowers to about a 30 percent increase for gasoline-powered manual start push mowers. The costs attributable to individual requirements of the standard are discussed in paragraph (i) of this section.

(g) *Probable effect of the rule upon the availability of the product.* (1) The Commission finds that the standard is not expected to have a significant impact on the availability of walk-behind rotary mowers, since domestic production capacity appears to be sufficient to handle any increased demand for safety-related components or materials. Although adapting some types of power mowers to the standard may be more costly than others, the effects of the standard on the price or utility of a particular category of power mowers are not expected to cause radical shifts in demand among types of mowers. The Commission finds that all types of power mowers subject to the standard will be available, although some, such as house-current-powered mowers, may increase their market shares because they can be brought into compliance with the standard at a lesser cost.

(2) Because some manufacturers may not revise their entire product line before the effective date of the standard, individual mower manufacturers may initially have less varied lines than at present, but there should be no decrease in the overall types and features of mowers available to consumers.

(h) *Alternative methods.* (1) The Commission has considered other means of achieving the objective of the standard. For example, alternatives were consid-

ered such as hand probes, "blade harmless" tests, and blade control by engine kill but allowing manual restart. These alternatives have been rejected by the Commission as being either unfeasible or not as effective as the rule which is being issued.

(2) Similarly, the Commission has found no alternative means of achieving the objective of the standard that it believes would have fewer adverse effects on competition or that would cause less disruption or dislocation of manufacturing and other commercial practices, consistent with the public health and safety.

(i) *Unreasonable risk of injury.* (1) The determination of whether a consumer product safety rule is reasonably necessary to reduce an unreasonable risk of injury involves a balancing of the degree and nature of risk of injury addressed by the rule against the probable effect of the rule on the utility, cost, or availability of the product. The factors of utility and availability of the products, adverse effects on competition, and disruption or dislocation of manufacturing and other commercial practices have been discussed above. The following discussion concerns the relationship of anticipated injury reduction and costs for various requirements of the standard. (See the report, *Economic Impact of Blade Contact Requirements for Power Mowers*, January 1979, for a detailed analysis of the possible effects of discounting and inflation on the computation of the quantifiable benefits associated with this regulation.)

(2) The foot probe and related requirements are expected to reduce the number of blade contact injuries to the foot by 13,000 each year. It is not possible to apportion this injury reduction among the respective requirements. The cost of these requirements is estimated to be about \$4.00 per mower, mostly for redesign of the shields. The shield strength requirement is similar to a requirement in the existing voluntary standard that is almost universally complied with, and should comprise only a small portion of the \$4.00 retail cost increase compared to pre-standard mowers that is attributable to this related group of requirements.

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Also, shields complying with the movable shield requirement are featured in some currently produced mowers.

(3) The foot probe and related requirements should result in a cost increase of about \$22,000,000 and undiscounted injury savings of about \$46,000,000, exclusive of any allowance for pain and suffering.

(4) The starting location control requirement would apply only to mowers with a power restart capability using engine kill to stop the blade. The cost for relocating the power restart switch, if necessary, should be very minor, and more than offset by the elimination of a clutch, as discussed below.

(5) The requirement that the blade stop within 3 seconds of the release of the blade control is supported by (i) the requirement that those mowers that stop the blade by stopping the engine must have a power restart (to remove the motivation to disable the blade control because of the inconvenience of manually starting the mower each time the control is released) and by (ii) the requirement for an additional control that must be actuated before the blade can resume operation (to prevent accidental starting of the blade). Together, these requirements are expected to reduce the number of blade contact injuries by 46,500 per year for an undiscounted savings in injury costs of about \$165,000,000 per year, exclusive of pain and suffering.

(6) Virtually all mowers will be subjected to a cost increase of about \$3 for the blade control actuating means and \$1 for the second control required to restart the blade. (The \$1 cost could be eliminated for power restart-engine kill mowers that do not start when the blade control is actuated.)

(7) Also, most mowers would require a brake for the blade in order to achieve a 3 second stop time. This would add another \$6.50-\$8.50, depending on the type of mower. Mowers with power restart capability could stop the blade by killing the engine and thus would not need to provide a clutch to disconnect the engine from the blade. Mowers using manual restart would have to provide a clutch or other blade disengagement devices, which would probably be combined with the brake in a unitary brake-clutch mechanism.

(8) The following are the Commission's estimates of the probable retail price increases associated with certain types of currently produced mowers that will be caused by the blade control requirements.

Type of mower	Blade control retail price increases
Electric mowers (house current or battery powered) .....	\$15.00
Present Electric start gasoline mowers .....	13.00-19.50
Present Manual start gasoline mowers brake clutch approach .....	32.50
Power restart approach .....	29.00-39.50

(9) The weighted average retail price increase of the blade stop requirements is expected to be about \$31 per mower for a total retail cost increase of \$167,000,000.

(10) The foot probe and blade stop requirements of the standard will obviously not completely protect the users of mowers under all circumstances. It is still essential for consumers to be aware of the hazard of blade contact and take the proper precautions to protect themselves. It is especially important that users not become complacent with the knowledge that the mower incorporates blade contact safety requirements. Accordingly, the Commission has determined that it is desirable that mowers complying with the standard bear a label warning of the danger of blade contact. Such a requirement would result in practically no effect on the retail price of mowers since labels are very inexpensive and practically all currently produced mowers bear some type of warning label. In view of the hazard that will be associated with power mowers even after the effective date of the standard, and the low cost of the label, the Commission concludes there is an unreasonable risk of injury that can be addressed by the label requirements in this part 1205.

(j) *Conclusion.* Therefore, after considering the anticipated costs and benefits of part 1205 and the other factors discussed above, and having taken into account the special needs of elderly and handicapped persons to determine the extent to which such persons may be adversely affected by the rule, the Commission finds that part 1205 (including the effective dates) is reasonably necessary to eliminate or reduce

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the unreasonable risk of injury associated with walk-behind power lawn mowers and that promulgation of the rule is in the public interest.

[44 FR 10024, Feb. 15, 1979, as amended at 45 FR 86417, Dec. 31, 1980]

### Subpart B—Certification

SOURCE: 44 FR 70386, Dec. 6, 1979, unless otherwise noted.

#### § 1205.30 Purpose, scope, and application.

(a) *Purpose.* Section 14(a) of the Consumer Product Safety Act, 15 U.S.C. 2063(a), requires every manufacturer (including importer) and private labeler of a product which is subject to a consumer product safety standard to issue a certificate that the product conforms to the applicable standard, and to base that certificate either on a test of each product or on a "reasonable testing program." The purpose of this subpart B of part 1205 is to establish requirements that manufacturers and importers of walk-behind rotary power lawn mowers subject to the Safety Standard for Walk-Behind Power Lawn Mowers (16 CFR part 1205, subpart A), shall issue certificates of compliance in the form of specified labeling and shall keep records of the testing program on which the certificates are based.

(b) *Scope and application.* (1) The provisions of this rule apply to all rotary walk-behind power lawn mowers which are subject to the requirements of the Safety Standard for Walk-Behind Power Lawn Mowers. This rule does not apply to reel-type mowers, which are subject only to the labeling requirements of the standard.

(2) As authorized by section 14(a)(2) of the act, the Commission exempts manufacturers who manufacture or import only component parts, and private labelers, from the requirement to issue certificates. (Private labelers who are also importers must still certify.)

#### § 1205.31 Effective date.

Any walk-behind rotary power mower manufactured after December 31, 1981, must meet the standard and must be certified as complying with

the standard in accordance with this rule.

#### § 1205.32 Definitions.

In addition to the definitions set forth in section 3 of the act (15 U.S.C. 2052) and in §1205.3 of the standard, the following definitions shall apply to this subpart B of part 1205:

(a) *Manufacturer* means any person or firm that manufactures or imports power lawn mowers subject to this standard, and includes those that assemble power lawn mowers from parts manufactured by other firms.

(b) *Manufactured* means the earliest point at which the mower is in the form in which it will be sold or offered for sale to the consumer or is in the form in which it will be shipped to a distributor or retailer. In these forms, a "manufactured" mower may still require partial assembly by the consumer or the lawn mower dealer.

(c) *Private labeler* means an owner of a brand or trademark which is used on a power lawn mower subject to the standard and which is not the brand or trademark of the manufacturer of the mower, provided the owner of the brand or trademark has caused or authorized the mower to be so labeled and the brand or trademark of the manufacturer of such mower does not appear on the label.

(d) *Production lot* means a quantity of mowers from which certain mowers are selected for testing prior to certifying the lot. All mowers in a lot must be essentially identical in those design, construction, and material features which relate to the ability of a mower to comply with the standard.

(e) *Reasonable testing program* means any test or series of tests which are identical or equivalent to, or more stringent than, the tests defined in the standard and which are performed on one or more mowers of the production lot for the purpose of determining whether there is reasonable assurance that the mowers in that lot comply with the requirements of the standard.

#### § 1205.33 Certification testing.

(a) *General.* Manufacturers and importers shall either test each individual rotary walk-behind power lawn mower (or have it tested) or shall rely