UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

This document has been electronically approved and signed.

BALLOT VOTE SHEET

DATE: October 13, 2010

TO: The Commission
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel
Kenneth R. Hinson, Executive Director

FROM: Philip L. Chao, Assistant General Counsel
Jan S. Carlson, General Attorney

SUBJECT: Notice of Proposed Rulemaking to Amend Bicycle Regulations at 16 C.F.R. Part 1512

Ballot Vote Due: OCT 20 2010

The Office of the General Counsel is providing, as part of the staff briefing package, a draft Notice of Proposed Rulemaking (NPR) that would propose limited, technical amendments to the Commission's regulations at 16 C.F.R. part 1512, *Requirements for Bicycles*.

Please indicate your vote on the following options.

I. Approve the publication of the NPR in the *Federal Register* without change.

_____ _____
(Signature) (Date)

RH 10/13/2010
CLEARED FOR PUBLIC RELEASE
UNDER CPSA 6(b)(1)

THIS DOCUMENT HAS NOT BEEN REVIEWED OR ACCEPTED BY THE COMMISSION.

II. Approve the publication of the NPR in the *Federal Register* with changes. (Please specify.)

_____

_____

_____

_____ _____

(Signature) (Date)

III. Do not approve the publication of the NPR in the *Federal Register.*

_____ _____

(Signature) (Date)

IV. Take other action. (Please specify.)

_____

_____

_____

_____ _____

(Signature) (Date)

Staff Briefing Package

DRAFT PROPOSED AMENDMENTS TO 16 CFR PART 1512, *REQUIREMENTS FOR BICYCLES*

CPSC Hotline: 1-800-638-CPSC(2772) CPSC's Web Site: http://www.cpsc.gov

TABLE OF CONTENTS

PAGE NUMBER

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
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Memorandum

Date: October 13, 2010

TO : The Commission
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel
Kenneth R. Hinson, Executive Director

FROM : Robert J. Howell, Assistant Executive Director
Office of Hazard Identification and Reduction

Vincent J. Amodeo, Project Manager
Division of Mechanical Engineering
Directorate for Engineering Sciences

SUBJECT : Draft Proposed Amendments to 16 CFR part 1512, *Requirements for Bicycles*

I. INTRODUCTION

This briefing package presents U.S. Consumer Product Safety Commission (CPSC) staff's draft proposed technical amendments to 16 CFR part 1512, *Requirements for Bicycles*, which was issued under the Federal Hazardous Substances Act (FHSA). Staff's suggested changes include adding and clarifying terms and requirements necessary for bicycle manufacturers to conduct testing and certification in accordance with the Consumer Product Safety Improvement Act of 2008 (CPSIA), and excepting certain types of bicycles or components from testing under specific sections of the regulation. Most of the suggested amendments are in response to a request for clarification of the standard from the Bicycle Product Suppliers Association (BPSA).

II. BACKGROUND

The mandatory standard for bicycles appears at 16 CFR part 1512, *Requirements for Bicycles*. The revised final regulation was codified at that location in 1978, 43 *FR* 60034 (December 22, 1978). The mandatory standard establishes minimum requirements intended to reduce the risk of injury from bicycles sold to consumers. The standard prescribes requirements for mechanical systems found on bicycles and provides detailed test requirements that those systems must meet to comply with the standard.

According to Section 14 of the Consumer Product Safety Act (CPSA), as amended by the Consumer Product Safety Improvement Act of 2008 (CPSIA), manufacturers and importers of products subject to 16 CFR part 1512 must certify that their products comply with this standard. Certifications of bicycles designed or intended primarily for children 12 years of age or younger must be based on tests conducted by a third party conformity assessment body whose accreditation has been accepted by the CPSC.

The CPSC stayed the enforcement of certain provisions of section 14 of the CPSA in a notice published in the Federal Register on February 9, 2009 (74 FR 6396); the stay applied to testing and certification of various products, including bicycles. On December 28, 2009, the CPSC published a notice in the Federal Register (74 FR 68588) revising the terms of the stay. In the December 28, 2009 notice, the CPSC continued the stay for the bicycle regulation until May 17, 2010, due to insufficient lab capacity for third party testing of children's bicycles. The CPSC further stated, "[s]hould the extension of this stay until May 17, 2010, prove insufficient, the bicycle manufacturers and laboratories must petition the Commission for additional relief no later than April 1, 2010" (74 FR 68590).

On April 1, 2010, the BPSA petitioned the CPSC for an extension of the stay of enforcement as it relates to 16 CFR part 1512. The BPSA contended that laboratory capacity was still inadequate. It also asserted that 16 CFR part 1512 is "out of date in many respects" and urged the CPSC to revise the regulation.

CPSC staff met with BPSA representatives on May 3, 2010, to discuss the petition. Prior to the meeting, the BPSA provided staff with a draft matrix detailing which areas of the bicycle regulation they believed could present problems with testing and certification.

On June 17, 2010, the CPSC extended the stay on bicycles until August 14, 2010 (75 FR 34360), with two exceptions.[1] The CPSC also responded to the BPSA in a letter on May 24, 2010, requesting that the BPSA provide specific information on which provisions of the current regulation are problematic, which models or classes of bicycles are affected, and other associated issues. The letter stated that the CPSC would provide certification guidance on any issues as soon as feasible thereafter (**TAB A**).

In a June 4, 2010, letter to the CPSC, the BPSA provided a final matrix outlining the provisions of the current bicycle regulation that it believes present problems regarding certification (**TAB B**).

CPSC staff's suggested revisions to the bicycle regulation in this package address only those items noted by the BPSA that do not require a substantive change to the bicycle standard. Staff believes that several of the changes requested by the BPSA represent an expansion or relaxation of the existing requirements, which cannot be addressed under the current project scope.

III. VOLUNTARY STANDARDS

There are several voluntary standards with requirements and/or test methods for bicycles and bicycle components.

The European Committee for Standardization (CEN) developed the following standards for complete bicycles, based on intended usage:

[1] Except for bicycle reflectors (16 CFR § 1512.16, *Requirements for reflectors*), for which third party testing is required effective 11/15/10; and except for bicycles with nonquill-type stems, which are excluded from certifying compliance to 16 CFR § 1512.6(a), *Requirements for steering systems, Handlebar stem insertion mark*, until further notice. See Federal Register notice at http://www.cpsc.gov/businfo/frnotices/fr10/staybike.pdf.

- EN 14765 – *Bicycles for Young Children – Safety Requirements and Test Methods,*
- EN 14781 – *Racing Bicycles – Safety Requirements and Test Methods,*
- EN 14764 – *City and Trekking Bicycles – Safety Requirements and Test Methods*, and
- EN 14766 – *Mountain Bicycles – Safety Requirements and Test Methods.*

The International Organization for Standardization (ISO) has two standards for complete bicycles. These standards are currently undergoing revision to harmonize with the CEN standards cited above. The ISO's standard for complete bicycles are as follows:

- ISO 8098 – *Cycles – Safety Requirements for Young Children*, and
- ISO 4210 – *Cycles – Safety Requirements for Bicycles*
  (This standard is currently being revised to cover racing bicycles, city and trekking bicycles, and mountain bicycles, in separate sections of the standard.)

ASTM International (ASTM) does not have any standards for complete bicycles. It does have the following standards and test methods for specific bicycle components, some of which are based on intended usage[2]:

- F2043-09 *Standard Classification for Bicycle Usage,*
- F2273-03 *Standard Test Methods for Bicycle Forks,*
- F2711-08 *Standard Test Methods for Bicycle Frames,*
- F2680-09 *Standard Specification for Manually Operated Front Wheel Retention Systems for Bicycles,*
- F2274-03 *Standard Specification for Condition 3 Bicycle Forks,*
- F2843-10 *Standard Specification for Condition 0 Bicycle Frames,*
- F2802-09 *Standard Specification for Condition 1 Bicycle Frames, and*
- F2614-09 *Standard Specification for Condition 3 Bicycle Frames.*

ASTM is currently working on the following bicycle component standards, which have not yet been finalized:

- *Standard Specification for Bicycle Handlebar Grips,*
- *Standard Specification for Condition 1 Bicycle Forks, and*
- *Standard Specification for Condition 2 Bicycle Frames.*

In comparing the requirements of the CPSC's mandatory standard to those in the voluntary standards, staff found that some of the requirements in the mandatory standard are stricter, some are comparable, and some are less strict than those in the voluntary standards. Some of the requirements in the voluntary standards were used for guidance in the staff's draft proposed amendments to 16 CFR part 1512.

[2] ASTM F2043-09 *Standard Classification for Bicycle Usage* defines five intended usage classes: Condition 0 (Sidewalk bicycles), Condition 1 (Road bicycles), Condition 2 (Hybrid/trekking bicycles), Condition 3 (Mountain bicycles), and Condition 4 (Downhill bicycles).

IV. STAFF'S DRAFT PROPOSED AMENDMENTS

CPSC staff recommends the following 12 revisions to 16 CFR part 1512, *Requirements for Bicycles*. These revisions include adding and clarifying terms and requirements, as well as excepting certain types of bicycles or bicycle components from specific sections of the regulation.

1. § 1512.2 (b) – *Definitions* – Except recumbent bicycles from the definition of sidewalk bicycles.

   Recumbent bicycles are adult bicycles ridden in a seated position with the legs extended forward. In general, recumbent bicycles have a low seat surface with high seat backs. As such, recumbent bicycles should be excepted from the definition of sidewalk bicycles, which are defined by a seat surface height of no more than 635 millimeters (25.0 inches).

2. § 1512.2 (d) – *Definitions* – Clarify that the definition for a track bicycle should be modified to a bicycle intended for competitive *velodrome* racing, having no brake calipers or levers, and a fixed-gear crank drive. These bicycles may have tubular or clincher tires.

   This change makes it clear that specialized bicycles intended for racing on a closed-course velodrome track are excepted from the regulation. The current standard specifies tubular tires only in the definition of a track bicycle; but improvements in clincher tires permit their use on track bicycles. If the definition is not modified, track bicycles with clincher tires would be subject to the bicycle regulation. This revision makes clear exactly which type of bicycle is excepted from the regulation.

3. § 1512.2 – *Definitions* – Add a definition for *recumbent bicycle* as a bicycle in which the rider sits in a reclined position with the feet extended forward.

   Although recumbent bicycles are subject to the regulation, they were not commonly available when the standard was written. Because of their unique configuration, clarification of certain requirements is needed for recumbent bicycles to be certified.

4. § 1512.4 (b) – *Sharp edges* – Clarify that the sharp edge requirement applies only to *assembled* bicycles.

   Bicycles that need to be assembled by an adult or retail store may contain sharp edges in the unassembled state that would not present a hazard to the rider when the bicycle is fully assembled.

5. § 1512.4 (i) – *Control cable ends* – Clarify that the requirement for control cable ends applies only to *accessible* control cable ends.

   A bicycle may have control cable ends that are not exposed, posing no hazard to the user, and need not be provided with protective caps.

6. § 1512.6 (a) – *Handlebar stem insertion mark* – Clarify that the handlebar stem minimum depth insertion mark requirement applies to *quill-type* stems only.

   Modern threadless bicycle stems clamp around the fork steerer tube instead of being inserted into the steerer tube and, therefore, do not require a minimum insertion depth mark.[3]

7. § 1512.6 (c) – *Handlebars* – Except recumbent bicycles from the handlebar height requirement.

   Some recumbent bicycles may have handlebars higher than 406 millimeters (16 inches) above the seat surface as a requirement of their nontraditional rider position and design and, therefore, need to be excepted from the handlebar height requirement.

8. § 1512.12 (b) – *Wheel hub quick release devices* – Except carbon fiber forks from the embossment requirement for the quick-release device.

   Carbon fiber material should not be nicked or indented; otherwise, it can be weakened, thereby reducing its strength and safety.

9. § 1512.15 (a) – *Seat limitation* – Except recumbent bicycles from the seat limitation requirement.

   Because of the high-back seat design for the reclined rider, recumbent bicycles should be excepted from the seat limitation requirement that no part of the seat be more than 125 millimeters (5.0 inches) above the top of the seat surface.

10. § 1512.15 (b) – *Seat post minimum insertion depth mark* – Except bicycles with integrated seat masts from the seat post minimum insertion depth mark requirement.

    Integrated seat masts are found on some bicycles with carbon fiber frames. These bicycles do not have traditional seat posts; instead, the integrated seat mast extends upward from the frame, and the seat holding device clamps around the mast. The seat post is clamped around the seat mast instead of being inserted into the seat tube and, therefore, does not require a minimum insertion depth mark.

11. § 1512.18 (k)(1) – *Fork test* – Clarify that the fork test method does not require the fork to be deflected to 2.5 inches to accomplish this test. The required energy may be absorbed at any deflection up to 2.5 inches.

    This clarification of the test method will allow carbon fiber forks to be tested to the standard without reducing the safety of metal forks. Carbon fiber forks are less ductile

[3] This recommendation is consistent with the June 17, 2010, *Federal Register* notice in which the Commission excluded, until further notice, bicycles with nonquill-type stems from certifying compliance to 1512.6(a).

than steel and aluminum forks. While a carbon fiber fork is as strong as, or stronger than, one made from metal, it cannot bend a large amount without fracture. Staff believes that the intent of the fork test is to deflect the fork *no more than* 2.5 inches, while absorbing the specified energy of 39.5 Joules (350 inch-pounds). The proposed change does not modify the acceptance criteria or reduce safety.

12. § 1512.18 (n)(2)(vii) – *Reflector performance test* – Correct typographical errors in the equations for the reflector performance test.

    Equals signs are missing from the equations and erroneous minus signs are included.

Several of the issues identified by the BPSA cannot be addressed by minor revisions to the bicycle regulation. In some cases, the BPSA requested an expansion or relaxation of the current requirements, which would require further analysis by staff to address. A detailed analysis of these items is provided in **TAB C**.

V. PRELIMINARY REGULATORY ANALYSIS (**TAB D**)

The proposed amendments are limited; they clarify certain requirements for testing and certification purposes and implement various specific exceptions. Staff expects modest benefits in the form of needed clarifications that will facilitate the testing and certification of bicycles, but with no costs associated with these revisions. These amendments are not expected to have a significant impact on a substantial number of small entities. The amendments will not produce significant environmental effects. The changes do not impact the Paperwork Reduction Act.

VI. CONCLUSIONS

CPSC staff believes it is appropriate to amend 16 CFR part 1512 *Requirements for Bicycles* to make limited, necessary revisions to enable bicycle manufacturers to conduct testing and certification. Most of the amendments are in response to requests from the Bicycle Product Suppliers Association for clarification of the mandatory standard. The amendments are not expected to have any significant economic impact on small businesses or have any potential to produce significant environmental impacts. A 30-day effective date is recommended.

VII. OPTIONS

1. Direct staff to publish the draft notice of proposed rulemaking (**TAB E**), proposing minimal revisions to 16 CFR part 1512 *Requirements for Bicycles* in accordance with staff's draft proposed amendments described in this memorandum.

2. Direct staff to publish the draft notice of proposed rulemaking (**TAB E**), with revisions.

3. Make no revision to CFR part 1512 *Requirements for Bicycles* at this time.

VIII. STAFF RECOMMENDATION

Staff recommends publication of the draft notice of proposed rulemaking (NPR), proposing minimal revisions to 16 CFR part 1512 *Requirements for Bicycles* in accordance with staff's draft proposed amendments described in this memorandum. The notice provides for a 75-day period of public comment.

IX. REFERENCES

1. 16 CFR part 1512, *Requirements for Bicycles.*

TAB A: [Letter to the Bicycle Product Suppliers Association]

TAB A

U.S. CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814-4408

Todd A. Stevenson
Director - Office of the Secretary
Division of Information Management - Office of Information and Technology

Tel: 301-504-6836
Fax: 301-504-0127
Email: tstevenson@cpsc.gov

May 24, 2010

Erika Z. Jones
Counsel to Bicycle Product Suppliers Association
Mayer Brown LLP
1999 K Street, N.W.
Washington, D.C. 20006-1101

Dear Ms. Jones,

This responds to your petition, dated April 1, 2010, on behalf of the Bicycle Product Suppliers Association (BPSA). The petition requested an extension of the stay of enforcement of the testing and certification requirements related to 16 CFR part 1512 imposed by section 14 of the Consumer Product Safety Act (CPSA), as amended by the Consumer Product Safety Improvement Act of 2008 (CPSIA).

The Consumer Product Safety Commission (Commission or CPSC) has decided to extend the stay related to 16 CFR part 1512 (other than 16 CFR § 1512.16, as discussed below) until August 14, 2010. Manufacturers and importers of products subject to 16 CFR part 1512 that are manufactured on or after August 14, 2010, will need to certify that their product complies with 16 CFR part 1512. Certifications of bicycles designed or intended primarily for children 12 years of age or younger must be based on tests conducted by a third party conformity assessment body whose accreditation has been accepted by the CPSC. As you are aware the CPSC maintains a list of third party conformity assessment bodies on its website. Certifications of nonchildren's bicycles must be based on a test of each product or upon a reasonable testing program.

The Commission is aware that there are currently no CPSC-accepted conformity assessment bodies accredited to test reflectors for compliance with 16 CFR § 1512.16. Commission staff will be discussing this issue with conformity assessment bodies in the coming weeks. We encourage BPSA members to work diligently to inform the conformity assessment body industry of the bicycle industry's need for CPSC-accepted third party conformity assessment bodies that will be capable of testing reflectors. Nevertheless, because there are not currently any CPSC-accepted third party conformity assessment bodies accredited to perform reflector tests, a stay related solely to 16 CFR § 1512.16 will remain in effect until November 14, 2010. Reflectors on children's bicycles manufactured on or after November 14, 2010, must be third-party tested, absent a finding by the Commission that conformity assessment body capacity remains insufficient.

TAB B: [Letter from the Bicycle Product Suppliers Association]

TAB B

MAYER • BROWN

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CORRECTED VERSION

June 4, 2010

Mr. Todd Stevenson, Secretary
United States Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814

Re: Bicycle Product Suppliers Association

Dear Mr. Stevenson:

This letter responds to your letter of May 24, 2010, advising the Bicycle Product Suppliers Association, ("BPSA") of the Commission's decision to extend the stay of enforcement related to 16 CFR Part 1512. On behalf of the BPSA, I wish to express our appreciation for this decision.

Your letter requested information from bicycle manufacturers regarding which provisions of the current regulation (Part 1512) are problematic for certification, which models or classes of bicycles are affected, and an explanation of the issue. In the short period of time between receipt of your letter and this due date, BPSA has endeavored to obtain from its membership information that is responsive to this request. We appreciate the Commission staff's willingness to offer certification guidance on these issues as soon as feasible, and we note that we will likely need to supplement our comments.

The BPSA has identified the items on the attached chart as problematic for certification. Where appropriate, the chart will identify specific models or classes of bicycles that are affected by the issue. If no specific models or classes of bicycles are identified, then the issue potentially pertains to all bicycles subject to Part 1512.

TAB C: [Memorandum from Vincent J. Amodeo, Directorate for Engineering Sciences]

TAB C

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814

Memorandum

Date: September 1, 2010

TO : Robert J. Howell, Assistant Executive Director
Office of Hazard Identification and Reduction

THROUGH : Erlinda M. Edwards, Acting Associate Executive Director,
Directorate for Engineering Sciences
Mark E. Kumagai, Director,
Division of Mechanical Engineering
Directorate for Engineering Sciences

FROM : Vincent J. Amodeo, Mechanical Engineer
Division of Mechanical Engineering
Directorate for Engineering Sciences

SUBJECT : Analysis of Bicycle Product Suppliers Association Comments on Certification of Products to the Bicycle Regulation

The Bicycle Product Suppliers Association (BPSA) identified sections of the bicycle regulation, 16 CFR part 1512, *Requirements for Bicycles*, that it considers problematic with respect to testing and certification. Some of the issues that the BPSA presented can be addressed by adding and clarifying terms and requirements, and by excepting certain very specific types of bicycles or components that cannot be tested to specific sections of the regulation. Some of the issues raised by the BPSA, while related to testing and certification, are more about a need to update the regulation. In several cases, to address the BPSA's concerns, amendments to the regulation would require an expansion or relaxation of the current requirements, which cannot be accomplished under the current project scope. Some of these unaddressed items could present conformance testing and certification issues if the manufacturer is unable to meet the requirement.

The following issues presented by the BPSA are not addressed in the staff's draft proposed amendments to the regulation.

1. § 1512.1 – *Scope*, 1512.2 – *Definitions*, and 1512.3 – *General Requirements* – Clarification on whether a bicycle sold without pedals is a complete bicycle and therefore subject to the regulation.

   Staff considers that a bicycle sold without pedals is subject to the regulations. Staff is aware that bicycle manufacturers may sell high-end road and mountain bicycles without pedals. Most purchasers of high-end bicycles tend to use clipless pedals of their own preference instead of platform pedals. In addition, most clipless pedals do not have reflectors and cannot be offered as original equipment on bicycles. Therefore,

manufacturers tend to offer high-end bicycles without pedals. If someone purchases a high-end bicycle and does not want to use clipless pedals, then the bicycle shop typically installs platform pedals that conform to the regulation so the user may ride the bicycle. In accordance with the general requirements of the standard (§ 1512.3): *any bicycle subject to the regulations in this part shall meet the requirements in this part in the condition to which it is offered for sale to consumers.* Therefore, staff believes that a bicycle sold without pedals is a complete bicycle and subject to the regulation. The bicycle must be tested with a compliant pedal to meet testing and certification requirements.

2. § 1512.4 (g) – *Mechanical requirements, Excluded area* – Relaxation of the protrusion requirement in the excluded area to allow cable stop material with a thickness up to 10 millimeters.

   The BPSA states that bicycle frames made from aluminum require aluminum cable stops that must be thicker than steel cable stops because aluminum is a softer material. The BPSA would like to relax the standard to allow cable stops in the excluded area (on top of the bicycle frame's top tube) made from material with a thickness up to 10 millimeters versus the current 4.8 millimeter requirement. To relax the present requirement, staff would need to determine that there is no reduction in safety from allowing thicker cable stops in the excluded area. This cannot be accomplished under the current project scope. Manufacturers can position cable stops on the side or bottom of the top tube so that they would not be considered protrusions. Staff notes that the current CPSC regulation is consistent with the current CEN bicycle standard requirement for cable stop thickness in the excluded area.

3. § 1512.4 (j) – *Mechanical requirements, Control cable ends* – Example diagram.

   The regulation states that "control cables shall not abrade over fixed parts and shall enter and exit cable sheaths in a direction in line with the sheath entrance and exit so as to prevent abrading." The BPSA suggested that a diagram be included as an example but did not explain how a diagram would provide additional clarification. Staff does not believe that a diagram is necessary.

4. § 1512.5 (a) – *Requirements for braking system* – Clarification on whether a fixed-gear bicycle can be sold with a front brake only.

   The regulation requires bicycles to be equipped with front and rear wheel brakes or rear wheel brakes only. On fixed-gear bicycles, the pedals are "fixed" to the movement of the rear wheel. As such, the bicycle can be slowed without hand brakes, by slowing the pedal motion. This takes practice and is not an easy skill for novice riders. Fixed-gear riders often remove the brakes on their bikes and rely entirely on their ability to use the rear wheel for slowing and stopping the bicycle.

   Many fixed-gear bicycles are ridden with a front hand brake only, which eliminates the need for cable stops on the bicycle frame. However, use of only a front brake in a panic

stop can cause a rider to be launched over the handlebars. Since it requires a specific skill to accomplish braking with only the fixed-gear rear wheel, the fixed-gear feature cannot be considered a brake in accordance with the regulations. In order to relax the present requirement, staff would need to determine that there is no safety detriment from allowing only a front brake on these bicycles.

5. § 1512.5 (b)(3) – *Handbrakes, Grip dimension* – Relaxation of the current requirement for grip dimension from 89 millimeters to 100 millimeters.

   The regulation specifies a maximum outside dimension of 89 millimeters from the inside of the handlebar to the outside of the brake lever at any point between the pivot point of the lever to the midpoint of the lever. The BPSA states that certain time-trial bicycles and "drop bar" bicycles with integrated shift/brake levers do not meet the current requirement. In order to relax the present requirement, staff would need to determine that there is no safety detriment from increasing this dimension.

6. § 1512.6 (e) – *Requirements for steering system, Handlebar and clamps* – Clarify requirement is for quill-type stems only.

   The regulation specifies that the handlebar and clamps shall be tested in accordance with the handlebar test, § 1512.18(h), and that the instruction manual provide directions for proper assembly. The BPSA suggested that this requirement is for quill-type stems only; however, staff believes that this requirement is applicable to all types of stem bolts and clamps.

7. § 1512.7 – *Requirements for pedals* – Exception of requirement for clipless pedals to have pedal tread, securely attached toe clips, and reflectors.

   CPSC staff is aware that many bicycle riders use aftermarket clipless pedals and shoes with mating cleats to retain their feet on the pedals. Clipless pedals became popular in the late 1980s, and there are now many different manufacturers and designs. Because of their configuration, it is difficult for manufacturers to provide reflectors on clipless pedals that meet the requirements. Therefore, clipless pedals cannot be offered for sale as original equipment on bicycles, because pedals must come with reflectors to meet the requirements of the mandatory standard. Staff views clipless pedals primarily as an aftermarket product that is not subject to the regulation. Therefore, they are not required to have treads or reflectors. Staff would have to determine that there is no safety impact from allowing bicycles to be sold with no pedal reflectors.

8. § 1512.9 (a) – *Requirements for protective guards, Chain guard* – Clarification of requirement for bicycle with belt drives to have chain guards.

   Chain guards are required on bicycles with a single front sprocket and a single rear sprocket. Some manufacturers use belt drives instead of traditional chain link drives on certain bicycle models. Because belt drives use the same configuration as traditional chain drives (i.e., single front and rear sprockets), manufacturers must provide protective

guards on these bicycles. In order to relax the requirement for bicycles with belt drives, staff would have to determine that there is no safety impact from removing the protective guard on bicycles with belt drives.

9. § 1512.9 (b) – *Requirements for protective guards, Derailleur guard* – Exception from requirement for derailleur guard on modern wheel designs and 11-speed drive trains.

   The regulation requires the rear derailleur to be guarded to prevent the drive chain from interfering with or stopping the rotation of the wheel through improper adjustments or damage. Traditionally, manufacturers have installed a plastic disk between the inside of the rear cassette inner gear and the spokes to meet this requirement. As rear cassettes have increased from 5 gears to 11 gears on some models, the room available to install a conventional guard can be minimal. The BPSA states that there is no room for the conventional derailleur guard on these bicycles.

   Staff believes that the derailleur guard is not essential for the bicycle to function if it is properly adjusted; indeed, recreational and competitive cyclists often remove the guard. When properly adjusted, the rear derailleur will not impact the spokes. However, should the derailleur become bent or otherwise damaged, it could impact the spokes and prevent the rear wheel from rotating if no guard is present. In order to relax the present requirement, staff would need to determine that there is no safety impact from removing the derailleur guard.

10. § 1512.16 (c) and (d) – *Requirements for reflectors, Front reflector* and *Rear reflector* – Relaxation of the requirement for front and rear reflectors to meet the reflector mount and alignment test requirements.

    The regulation requires front and rear reflectors to be tested in accordance with the reflector mount and alignment test in § 1512.18 (m). The reflectors must meet alignment requirements when subjected to a 20-pound load. The BPSA believes that the typical reflector band clamp attachment method for reflectors *may* not meet the force requirement, although they did not provide specific test data to support this contention. In order to relax the present requirement, staff would need to determine that there is no safety impact from a lower force requirement.

11. § 1512.16 (f) – *Requirements for reflectors, Side reflectors* – Relaxation of the requirement for side wheel reflectors on wheels without traditional spokes.

    The regulation requires bicycles to have side reflectors, which may consist of retro-reflective tire sidewalls, reflectors mounted on the spokes of each wheel, or reflective wheel rims (if non-rim brake calipers are used). Manufacturers do not have to install spoke reflectors to meet the requirement, although reflective tire sidewalls and rims are uncommon. The BPSA believes that wheels without conventional spokes do not have attachment methods consistent with the requirements for wheel reflectors. Staff agrees that certain high-end wheels are designed to be used for competition where reflectors may be of little benefit. However, in order to relax the present requirement, staff would

need to determine that there is no safety impact from removing side wheel reflectors for competition wheels.

12. § 1512.17 (c) – *Other requirements, Ground clearance* – Relaxation of the requirement for ground clearance for suspension bicycles.

    The regulation requires bicycles to be able to tilt to at least 25 degrees from the vertical without the pedal or any other part (other than tires) contacting the ground plane with the pedal in the horizontal position and the pedal crank in its lowest position. The BPSA believes that some full-suspension bicycles will not meet the ground clearance requirement due to their suspension design. Staff is unsure why the BPSA cites a special concern for suspension bicycles not meeting this requirement. Staff notes that the regulation is consistent with the current CEN bicycle standards requirement for ground clearance of 25 degrees. Additionally, the CEN standards require the test for bicycles with suspensions to be conducted with a load equivalent to the weight of a 175-pound rider. This requirement is more stringent than the requirement in the CPSC regulation, which uses an unweighted bicycle. In order to revise the present requirement, staff would need to determine that there is no safety impact from relaxing the ground clearance requirement for full-suspension bicycles.

13. § 1512.17 (d) – *Other requirements, Toe clearance* – Relaxation of the requirement for toe clearance on bicycles with small frames.

    The regulation requires bicycles not equipped with positive foot-retaining devices (such as toe clips) to have at least 89 millimeters (3.5 inches) clearance between the pedal and the front tire or fender (when turned to any position). The BPSA believes that ride handling on some small-sized adult frame bicycles will be negatively affected if required to meet the toe clearance requirement.

    The intent of the toe clearance requirement is to prevent the foot from contacting the front wheel during a turn, thereby causing a handling hazard. This is primarily an issue in low-speed turns, since the front wheel is not turned to any significant degree when the bicycle is at speed. Staff is aware that to achieve proper handling on some road bicycles, the toe clearance requirement may not be met. To address this concern, when the regulation was created, the exception for bicycles with toe clips was added. In order to relax the present requirement, staff would need to determine that there is no safety impact from relaxing the toe clearance requirement for bicycles without toe clips.

14. The BPSA pointed out several sections of the regulation where there is no requirement for a specific type of component or the mandatory requirement is not consistent with voluntary standard requirements. These include:

    a) § 1512.5 (b) (6) – *Requirements for braking systems, Handbrakes, Pad and pad holders* – There is no requirement for disc brakes.

    b) § 1512.6 (b) – *Requirements for steering system, Handlebar stem strength* – The

requirement is not consistent with CEN standards. There is no differentiation in the test requirements for different bicycle types (i.e., road, mountain, or downhill bicycles).

c) § 1512.11 – *Requirements for tires* – There is no requirement for tubular tire attachment.

d) § 1512.12 – *Requirements for wheel hubs* – There is no requirement for disc brake quick release or fork dropout retention tabs.

e) § 1512.15 (c) – *Requirements for seat, Adjustment clamps* – The requirement is not consistent with CEN standards.

f) § 1512.18 – *Tests and test procedures* – Test procedures are not consistent with CEN standards.

Staff agrees with BPSA that some parts of 16 CFR part 1512, *Requirements for Bicycles*, need to be updated. However, these items identified by the BPSA require further analysis and, therefore, are not addressed in the staff's draft proposed amendments.

TAB D: [Memorandum from Charles L. Smith, EC, Directorate for Economic Analysis].

TAB D

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MARYLAND 20814

Memorandum

Date: August 18, 2010

TO : Vincent J. Amodeo, Mechanical Engineering
Directorate for Engineering Sciences

THROUGH : Gregory B. Rodgers, Ph.D., Associate Executive Director,
Directorate for Economic Analysis
Deborah V. Aiken, Ph.D., Senior Staff Coordinator,
Directorate for Economic Analysis

FROM : Charles L. Smith, Directorate for Economic Analysis

SUBJECT : Preliminary Regulatory Analysis: Amendments to the *Requirements for Bicycles*, 16 CFR part 1512

The Commission is considering technical amendments to a standard issued under the Federal Hazardous Substances Act (FHSA). The amendments involve the *Requirements for Bicycles*, 16 CFR part 1512. The staff's suggested changes include adding and clarifying terms and requirements necessary for bicycle manufacturers to conduct testing and certification, and excepting certain types of bicycles or components from testing under specific sections of the regulation. Most of the amendments are in response to the bicycle manufacturers' requests for clarification of the standard, and they do not change any of the standard's acceptance criteria.

Recommended Amendments to the *Requirements for Bicycles*

CPSC staff recommends 12 changes to 16 CFR part 1512, *Requirements for Bicycles*. These suggested changes, and staff's rationale for each change, are as follows:

1. § 1512.2 (b) – *Definitions* – Except recumbent bicycles from the definition of sidewalk bicycles.

   Recumbent bicycles are adult bicycles ridden in a seated position with the legs extended forward. In general, recumbent bicycles have a low seat surface with high seat backs. As such, recumbent bicycles should be excepted from the definition of sidewalk bicycles which are defined by a seat surface height of no more than 635 millimeters (25.0 inches).

2. § 1512.2 (d) – *Definitions* – Clarify that the definition for a track bicycle should be modified to a bicycle intended for competitive *velodrome* racing, having no brake calipers or levers, and a fixed-gear crank drive. These bicycles may have tubular or clincher tires.

   This change makes it clear that specialized bicycles intended for racing on a closed-course velodrome track are excepted from the regulation. The current standard specifies

tubular tires only in the definition of a track bicycle, but improvements in clincher tires permits their use on track bicycles. If the definition is not modified, track bicycles with clincher tires would be subject to the bicycle regulation. This change makes clear exactly which type of bicycle is excepted from the regulation.

3. § 1512.2 – *Definitions* – Add a definition for *recumbent bicycle* as "a bicycle in which the rider sits in a reclined position with the feet extended forward."

   Although recumbent bicycles are subject to the regulation, they were not commonly available when the standard was written. Because of their unique configuration, clarification of certain requirements is needed in order for recumbent bicycles to be certified.

4. § 1512.4 (b) – *Sharp edges* – Clarify that the sharp edge requirement only applies to *assembled* bicycles.

   Bicycles that need to be assembled by an adult or retail store may contain sharp edges in the unassembled state that would not present a hazard to the rider when the bicycle is fully assembled.

5. § 1512.4 (i) – *Control cable ends* – Clarify that the control cable ends requirement applies to *accessible* control cable ends.

   A bicycle may have control cable ends that are not exposed, posing no hazard to the user, and need not be provided with protective caps.

6. § 1512.6 (a) – *Handlebar stem insertion mark* – Clarify that the handlebar stem minimum depth insertion mark requirement applies to *quill-type* stems only.

   Modern threadless bicycle stems clamp around the fork steerer tube instead of being inserted into the steerer tube, and therefore, do not require a minimum insertion depth mark.

7. § 1512.6 (c) – *Handlebars* – Except recumbent bicycles from the handlebar height requirement.

   Some recumbent bicycles may have handlebars higher than 406 millimeters (16 inches) above the seat surface, as a requirement of their nontraditional rider position and design, and need to be excepted from the handlebar height requirement.

8. § 1512.12 (b) – *Wheel hub quick release devices* – Except carbon fiber forks from the embossment requirement for the quick-release device.

   Carbon fiber material should not be nicked or indented; otherwise, it can be weakened, thereby reducing its strength and safety.

9. § 1512.15 (a) – *Seat limitation* – Except recumbent bicycles from the seat limitation requirement.

   Because of the high-back seat design for the reclined rider, recumbent bicycles should be excepted from the seat limitation requirement--that no part of the seat be more than 125 millimeters (5.0 inches) above the top of the seat surface.

10. § 1512.15 (b) – *Seat post minimum insertion depth mark* – Except bicycles with integrated seat masts from the seat post minimum insertion depth mark requirement.

    Integrated seat masts are found on some bicycles with carbon fiber frames. These bicycles do not have seat posts; instead, the integrated seat mast extends upward from the frame, and the seat clamping devices clamp around the mast. The seat post is clamped around the seat mast instead of being inserted into the seat tube, and therefore, does not require a minimum insertion depth mark.

11. § 1512.18 (k)(1) – *Fork test* – Clarify that the fork test method does not require the fork to be deflected to 2.5 inches to accomplish this test. The required energy may be absorbed at any deflection up to 2.5 inches.

    This clarification of the test method will allow carbon fiber forks to be tested to the standard. Carbon fiber forks are far more rigid than steel and aluminum forks. While a carbon fiber fork is as strong as, or stronger than, one made from metal, it cannot bend a large amount without fracture like a metal fork. Staff believes the original intent of the fork test was to deflect the fork *no more than* 2.5 inches while absorbing the specified energy. The proposed change does not modify the acceptance criteria or reduce safety.

12. § 1512.18 (n)(2)(vii) – *Reflector performance test* – Correct typographical errors in the equations for the Reflector performance test. Equal signs are missing from the equations, and erroneous minus signs are included.

Requirements that must be met under the FHSA and other governing laws

The FHSA requires that the Commission provide a preliminary analysis of a proposed rule, including amendments, related to regulations promulgated under the FHSA during development of the notice of proposed rulemaking. The preliminary analysis for the staff's proposed amendments must contain "a preliminary description of the potential benefits and potential costs of the proposed regulation...." Additionally, under the Regulatory Flexibility Act of 1980 (RFA), the Commission is required to address the potential economic effects of a proposed rule on small businesses and other small entities. Also, under the National Environmental Policy Act (NEPA), the Commission is required to consider the potential environmental effects of the proposed rule.

Potential Benefits and Costs

Staff's suggested amendments would not materially affect the types and classes of bicycles available for consumer use. Consequently, they are not expected to result in any change in the number of injuries or deaths. Although these amendments would not be expected to result in additional benefits in the form of reductions in deaths or injuries, they are expected to provide needed clarifications that will facilitate testing and certification of bicycles. Similarly, the amendments suggested by the staff are not expected to increase costs to manufacturers. For the most part, the changes are clarifications, which make it possible for manufacturers to submit bicycle models for certification testing, and, in most cases, the revisions would provide exceptions from selected provisions of the standard for bicycles or components with specific characteristics. No additional testing or recordkeeping requirements are contemplated as a result of the proposed amendments. Any changes in cost from the clarifications and exceptions that would result from the amendments are expected to result in cost savings for bicycle manufacturers.

Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) requires that the Commission consider whether a proposed rule would have a significant economic effect on a substantial number of small entities, including small businesses and small government entities. Based on available information, there would be little or no effect on small businesses, since the staff's suggested amendments will not result in product modifications to comply, and will not result in additional testing or recordkeeping burdens. If anything, the clarifications and exceptions from the amendments will likely result in cost savings to small businesses. Therefore, the Commission could conclude that the amendments to the *Requirements for Bicycles* recommended by staff are not expected to have a significant economic effect on a substantial number of small entities.

National Environmental Policy Act

Under the National Environmental Policy Act (NEPA), the Commission is required to consider the potential environmental impacts that would result from a proposed rule. The staff's suggested amendments should not have an impact on the production processes used by manufacturers. There is also no expected impact on the amounts of materials used in manufacturing, packaging, or labeling. It would not render existing finished goods inventories, or works in progress, unsellable, or require destruction of these products. Therefore, the proposed rule should not have adverse environmental consequences.

TAB E: [Draft Notice of Proposed Rulemaking, 16 CFR part 1512 Requirements for Bicycles]

TAB E

Billing Code 6355-01-P

CONSUMER PRODUCT SAFETY COMMISSION

[CPSC Docket No. CPSC-2010-XXXX]

16 CFR Part 1512

RIN XXXX-XXXX

Requirements for Bicycles

AGENCY: Consumer Product Safety Commission

ACTION: Notice of Proposed Rulemaking.

SUMMARY: The Consumer Product Safety Commission ("CPSC," "Commission," or "we") is proposing to amend its bicycle regulations at 16 CFR part 1512. The proposed amendments would make minor changes to certain requirements to reflect the development of new technologies, designs, and features in bicycles and clarify that certain provisions or testing requirements do not apply to specific bicycles or bicycle parts. The proposal also would delete an outdated reference and correct typographical errors in the bicycle reflector performance test.

DATES: Comments on this proposed rule should be submitted by [INSERT DATE 75 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by Docket No. CPSC-2010-[INSERT] by any of the following methods:

Electronic Submissions: Submit electronic comments in the following way:

Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments. To ensure timely processing of comments, the Commission is no longer accepting comments submitted by electronic mail (e-mail) except through http://www.regulations.gov.

Written Submissions: Submit written submissions in the following way:

Mail/Hand delivery/Courier (for paper, disk, or CD-ROM submissions) preferably in five copies, to: Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7923.

Instructions: All submissions received must include the agency name and docket number for this proposed rule. All comments received may be posted without change to http://www.regulations.gov, including any personal information provided. Do not submit confidential business information, trade secret information, or other sensitive or protected information (such as a Social Security Number) electronically; if furnished at all, such information should be submitted in writing.

Docket: For access to the docket to read background documents or comments received, go to http://www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: Vincent J. Amodeo, Mechanical Engineer, Directorate for Engineering Sciences, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; e-mail vamodeo@cpsc.gov; phone 301-504-7570.

SUPPLEMENTARY INFORMATION:

I. Background

CPSC regulations, at 16 CFR part 1512, establish requirements for bicycles pursuant to the Federal Hazardous Substances Act. The regulations were first promulgated in 1978 (43 FR 60034 (Dec. 22, 1978)), with minor amendments in 1980 (45 FR 82627 (Dec. 16, 1980)), 1981 (46 FR 3204 (Jan. 14, 1981)), 1995 (60 FR 62990 (Dec. 8, 1995)), and 2003 (68 FR 7073 (Feb. 12, 2003); 68 FR 52691 (Sept. 5, 2003)).

In recent years, there have been technological changes in bicycle design and in the materials used to manufacture bicycles that have caused some bicycle manufacturers to question the applicability of a particular CPSC regulation or to seek changes to the regulations. Additionally, the enactment of the Consumer Product Safety Improvement Act of 2008 (CPSIA), Pub. L. 110-314, 122 Stat. 3016, has resulted in new testing and certification requirements for children's products and new limits on lead in children's products and on phthalates in children's toys.

The proposed rule would amend 16 CFR part 1512, which will clarify certain safety requirements for bicycles. The proposal would clarify that certain provisions or testing requirements do not apply to specific bicycles or bicycle parts, delete an outdated reference, and correct typographical errors in the bicycle reflector performance test.

The proposal also would facilitate the testing and certification required by section 14 of the Consumer Product Safety Act (CPSA), 15 U.S.C. 2063, as amended by section 102 of the CPSIA. Section 14 of the CPSA requires manufacturers and private labelers of a product subject to a CPSC rule, ban, standard, or regulation to certify compliance of the product with such rule, ban, standard, or regulation. Section 14(a)(1) of the CPSA requires that certifications for nonchildren's products be based on a test of each product or upon a reasonable testing program. Section 14(a)(2) of the CPSA requires that certifications for children's products be based on tests conducted by a CPSC-accepted third party conformity assessment body (also commonly referred to as a third party laboratory or simply as a laboratory). Under section 14(a)(3) of the CPSA, the requirement to third-party test children's products applies to products manufactured more than 90 days after the CPSC has established and published notice of the requirements for accreditation of third party conformity assessment bodies to assess conformity with a particular rule. In the Federal Register of September 2, 2009 (74 FR 45428), the CPSC published a notice of the requirements for accreditation of third party conformity assessment bodies to assess conformity with 16 CFR part 1512.

However, in the Federal Register of February 9, 2009 (74 FR 6396), the Commission published a notice announcing that it had stayed, for one year, the testing and certification requirements of section 14 of the CPSA as applied to 16 CFR part 1512, and most other CPSC regulations. The stay was intended to give the CPSC time to address many issues raised by the CPSIA's testing and certification requirements (Id. at 6397). Later, in the Federal Register of December 28, 2009 (74 FR 68588), the Commission published a notice that revised the terms of the stay. The Commission maintained the stay on the testing and certification requirements for the bicycle regulations until May 17, 2010, because there was insufficient laboratory capacity for

third party testing of bicycles at that time (Id. at 68590). The Commission invited bicycle manufacturers and laboratories to petition the Commission for additional relief if the extension of the stay proved insufficient.

On April 1, 2010, the Bicycle Products Suppliers Association (BPSA), which describes itself as an association of suppliers of bicycles, parts, accessories, and services who serve the specialty bicycle retailer, petitioned the Commission for an additional extension of the stay. (The April 1, 2010, BPSA petition, along with all other correspondence discussed in this preamble, may be viewed at www.regulations.gov in the docket for this rulemaking.) The BPSA contended that there still was insufficient laboratory capacity to handle testing of children's bicycles. It also asserted that 16 CFR part 1512 is out of date in many respects, stated its understanding that the CPSC may commence rulemaking to revise part 1512 in the near future, and urged the Commission to begin such rulemaking. The BPSA suggested that the Commission maintain the stay on testing and certification of bicycles until such a rulemaking concludes, or for an additional year.

On May 3, 2010, CPSC staff met with representatives of the BPSA to discuss the petition. (A summary of the meeting may be found at [insert web address].) On June 17, 2010, the Commission published a notice in the Federal Register extending the stay on testing and certification requirements for bicycles until August 14, 2010, with two exceptions (75 FR 34360). First, because laboratory capacity, at that time, was still insufficient to assess compliance with the reflector requirements at 16 CFR § 1512.16, the Commission extended the stay as it related to bicycle reflectors, until November 14, 2010 (Id.). The Commission allowed the additional three-month period for the development of CPSC-accepted laboratory capacity for bicycle reflector testing. Second, the Commission excluded bicycles with nonquill-type stems

from the requirement to certify compliance with the handlebar stem insertion mark requirement at 16 CFR § 1512.6(a); bicycles with nonquill-type stems may not be able to comply with the insertion mark requirement.

(A stem is the part of a bicycle that connects the handlebars to the "steerer" or upper part of the bicycle fork [the part of the bicycle that holds the front wheel and can turn to steer the bicycle]. A quill-type stem is a stem that is inserted into the steerer. Most older bicycles use a quill-type stem, but newer bicycles may use other means to connect the stem to the fork. For example, a "threadless" stem clamps onto the outside of the steerer [rather than having the stem go inside the steerer], and so we will refer to such other types of stems as "nonquill-type stems.")

In its letter responding to the BPSA's petition, the Commission communicated its decision to extend the stay until August 14, 2010, with the two exceptions for reflector testing and stems. We stated that we are aware that 16 CFR part 1512 does not adequately address some new technologies, designs, or materials, and we asked that manufacturers who believe that they are unable to certify current designs to 16 CFR part 1512 to provide the Commission with specific information regarding which provisions of the current regulation are problematic, which models or classes of bicycles are affected, and an explanation of the issue.

In response, on June 4, 2010, the BPSA sent a chart to the CPSC identifying areas in the bicycle regulations that the BPSA considered problematic for certification. This chart differed slightly from a chart that the BPSA had provided informally to CPSC staff earlier in 2010. We have considered both charts in the process of developing this proposed rule. (Both charts may be viewed at www.regulations.gov, in the docket for this rulemaking.)

We acknowledge that bicycle technologies, designs, and features have changed dramatically since 16 CFR part 1512 was originally promulgated. A comprehensive review of

the bicycle regulations, however, cannot be accomplished in the timeframe that is necessary for implementing the testing and certification requirements of section 14 of the CPSA. Accordingly, this proposed rule would make only limited amendments to 16 CFR part 1512 to facilitate testing and certification of bicycles in accordance with section 14 of the CPSA. We will consider the remainder of the issues identified by the BPSA when we undertake a more extensive review of the bicycle regulations.

II. Description of the Proposed Rule

The proposed rule would amend six sections in 16 CFR part 1512.

A. Definitions (§ 1512.2)

1. Sidewalk Bicycles (§ 1512.2(b))

The existing regulation, at § 1512.2(b), defines a "sidewalk bicycle" as "a bicycle with a seat height of no more than 635 mm (25.0 in); the seat height is measured with the seat adjusted to its highest position." The proposed rule would amend the definition of sidewalk bicycle by adding a sentence stating that recumbent bicycles are not considered sidewalk bicycles. The specifications in the definition of sidewalk bicycles are aimed at bicycles for very young riders. Although some recumbent bicycles may have seats below the 635 millimeter height, recumbent bicycles do not share other features, or the intended riders, of sidewalk bicycles. Thus, the proposal would have the effect of clarifying which requirements are applicable to recumbent bicycles.

2. Track Bicycles (§ 1512.2(d))

The existing regulation, at § 1512.2(d), defines a "track bicycle" as "a bicycle designed and intended for sale as a competitive machine having tubular tires, single crank-to-wheel ratio, and no free-wheeling feature between the rear wheel and the crank." Track bicycles are not subject to the requirements of 16 CFR part 1512, yet the proposed rule would amend the definition of track bicycle to clarify further which bicycles are not subject to the regulations. The proposed rule would add the word "velodrome" between "competitive" and "machine," to clarify that a track bicycle is one intended for competitive velodrome racing. (A "velodrome" is an arena that has a banked track for bicycle racing.)

The proposed rule also would delete the term "tubular tires." Improvements in clincher tires in recent years permit their use on track bicycles; therefore, a definition restricted to bicycles with tubular tires is no longer accurate. (In very general terms, clincher tires are the type of tires associated with most bicycles and feature an inner tube and an outer tire that makes contact with the rims of a bicycle wheel at each edge [called a "bead"]. Tubular tires, in contrast, do not have edges that contact the rim; instead, tubular tires are attached to the rims using glue or tape.)

3. Recumbent Bicycle (Proposed § 1512.2(g))

The proposed rule would create a new definition for recumbent bicycle at § 1512.2(g). The proposal would define a recumbent bicycle as "a bicycle in which the rider sits in a reclined position with the feet extended forward to the pedals." We believe that a definition for recumbent bicycles is necessary because other provisions in this proposed rule would mention recumbent bicycles.

B. Mechanical requirements (§ 1512.4)

Section 1512.4 establishes various mechanical requirements for bicycles. Section 1512.4(b) prohibits "unfinished sheared metal edges or other sharp parts on bicycles that are, or may be, exposed to hands or legs." The proposed rule would add the word, "assembled" before "bicycles," to clarify that the prohibition on sharp edges does not apply to a bicycle still needing assembly when it is delivered to the consumer or retail store.

We also propose to correct a typographical error in paragraph (b) of section 1512.4. The wording should be, "burrs or spurs," rather than, "burrs of spurs," so that the final phrase reads, "so as to remove any feathering of edges, or any burrs or spurs caused during the sharing process."

Section 1512.4(i) requires that the ends of all control cables have protective caps or otherwise be treated to prevent unraveling. The proposed rule would add the word "accessible" between the words "all" and "control cables," to clarify that only accessible control cable ends are subject to the requirement regarding protective caps or prevention of unraveling. In other words, control cable ends housed within the bicycle frame or component would not need to be covered with protective caps or otherwise treated to prevent unraveling.

C. Requirements for steering system (§ 1512.6)

Section 1512.6(a) requires that the bicycle handlebar stem have a permanent ring or mark to indicate the minimum insertion depth of the handlebar stem into the fork. It also requires that the insertion mark not affect the structural integrity of the stem, not be less than 2 1/2 times the

stem diameter from the lowest point of the stem, and that the stem strength be maintained for at least a length of one shaft diameter below the mark.

The proposed rule would change the opening words of paragraph (a) from "[t]he handlebar stem shall" to "[q]uill-type handlebar stems shall," to clarify that this requirement only applies to bicycles having quill-type stems. Because nonquill-type stems do not get inserted into the stem, there is no need for them to have an insertion depth mark. This aspect of the proposal would codify the CPSC policy, announced in the June 17, 2010, stay notice, that nonquill-type stems would be excluded from the requirement to certify compliance with § 1512.6(a).

Section 1512.6(c) specifies that handlebars must allow comfortable and safe control of the bicycle and that handlebar ends be symmetrically located with respect to the longitudinal axis of the bicycle and "no more than 406 mm (16 in) above the seat surface when the seat is in its lowest position and the handlebar ends are in their highest position." The proposed rule would create an exception for recumbent bicycles because the handlebars of recumbent bicycles may exceed this regulatory maximum, depending upon their design configuration.

D. Requirements for Wheel Hubs (§ 1512.12(b))

Section 1512.12(b) currently states that, with respect to quick-release devices, the quick-release clamp action "shall emboss the frame or fork when locked." The proposed rule would create an exception for carbon fiber material. The requirement for a quick-release clamp action to emboss a frame or fork when locked is appropriate when bicycle frames are made using steel or aluminum. Modern technology, however, makes it possible to create bicycle frames using carbon fiber material. Carbon fiber is stronger than aluminum and steel, but embossing (or indenting) a carbon fiber frame or fork can weaken the material. To avoid such an illogical

result (i.e., of intentionally weakening a carbon fiber frame or fork), the proposal would, instead, create an exception for carbon fiber material.

E. Requirements for Seat (§ 1512.15)

Section 1512.15 establishes various requirements for bicycle seats. Section 1512.15(a) imposes a limitation on seat height, stating that "[n]o part of the seat, seat supports, or accessories attached to the seat shall be more than 125 mm (5.0 in) above the top of the seat surface at the point where the seat surface is intersected by the seat post axis."

Section 1512.15(b) requires seat posts to contain a "permanent mark or ring that clearly indicates the minimum insertion depth (maximum seat-height adjustment)" and that the mark not affect the structural integrity of the seat post. (A seat post is a post on which the bicycle seat or saddle rests; a traditional seat post is inserted into the bicycle frame and can be moved up or down to accommodate the rider's size.) Section 1512.15(b) also requires the mark to be "located no less than two seat-post diameters from the lowest point on the post shaft, and the post strength shall be maintained for at least a length of one shaft diameter below the mark."

The proposed rule would create an exception for recumbent bicycles from the seat height limitation in § 1512.15(a). Recumbent bicycles are designed for reclined riding, so the seats on recumbent bicycles tend to have substantial seat backs. This exception would enable recumbent bicycles to retain their high seat-back design without being in violation of § 1512.15(a).

The proposed rule also would create an exception for bicycles with integrated seat masts from the requirement that seat posts contain a permanent mark or ring to indicate the minimum insertion depth. Integrated seat masts are part of the bicycle frame itself; thus, they do not get inserted in a seat post, and so no insertion depth mark is possible.

F. Tests and Test Procedures (§ 1512.18)

The CPSC, on its own initiative, is proposing two amendments to the test and test procedures section. First, the proposed rule would amend § 1512.18(k)(1)(i), which describes the procedure for conducting the fork test. The test procedure requires, in relevant part, that the load on the fork "be increased until a deflection of 64 mm (2½ in) is reached." The test criteria, which are specified at § 1512.18(k)(1)(ii), explain that "[e]nergy of at least 39.5 J (350 in-lb) shall be absorbed with a deflection in the direction of the force of no more than 64 mm (2½ in.)." Thus, the fork test involves applying a load to the fork, and the fork must absorb the required energy while not deflecting more than 64 millimeters, or 2.5 inches.

The proposed rule would delete the last sentence of § 1512.18(k)(1)(i), regarding a deflection of 64 millimeters (2.5 inches), because § 1512.18(k)(1)(i) may be interpreted (incorrectly) as conflicting with § 1512.18(k)(1)(ii). In other words, a reader might construe the regulations as requiring force to be applied until the fork is deflected to 64 millimeters or 2.5 inches. Accordingly, to avoid any confusion, and because the fork test criteria accurately and adequately provides the substantive test requirements, the proposed rule would delete the last sentence of the description of the fork test procedure.

The proposed rule also would amend the reflector performance test description at § 1512.18(n)(2)(vii). The reflector performance test description discusses a coordinate system used for the reflector performance test and states that "[i]n the coordinate system and when illuminated by the source defined in table 4 of this part 1512, a reflector will be considered to be red if its color falls within the region bounded by the red spectrum locus and the lines y0.980 - - x and y0.335; a reflector will be considered to be amber if its color falls within the region

bounded by the yellow spectrum locus and the lines y0.382, y0.790 - 0.667x, and y x - - 0.120." The y and x coordinates, as described in the rule, omitted important mathematical symbols or duplicated other mathematical symbols. The proposal would amend § 1512.18(n)(2)(vii) to read "[i]n the coordinate system and when illuminated by the source defined in table 4 of this part 1512, a reflector will be considered to be red if its color falls within the region bounded by the red spectrum locus and the lines y = 0.980 - x and y = 0.335; a reflector will be considered to be amber if its color falls within the region bounded by the yellow spectrum locus and the lines y = 0.382, y = 0.790 - 0.667x, and y = x - 0.120."

Section 1512.18(n)(2)(vii) also refers to the "IES Lighting Handbook, fifth edition, 1972," and a footnote to the rule explains that the IES Lighting Handbook may be obtained from the Illuminating Engineering Society (IES) and gives an address for IES. The reference to the IES Lighting Handbook is outdated, as is the address for the IES. More importantly, the recommended coordinate system for definition of color discussed in § 1512.18(n)(2)(vii), the "Internationale de l-Eclairage (CIE) 1931" system, is readily accessible for little or no cost from various sources in addition to the IES, including the Internet. Because the CIE 1931 color coordinate system is publicly available, the reference to the IES Lighting Handbook is not necessary, and therefore, the proposed rule would delete the reference to the IES Lighting Handbook and its accompanying footnote.

II. FHSA Regulatory Requirement: Preliminary Regulatory Analysis

Section 3(h) of the FHSA describes the procedural requirements for a proposed rule promulgated under section 2(q)(1) and section 3(e) of the FHSA, which are among the legal authorities for the CPSC's Requirements for Bicycles, 16 C.F.R. part 1512. Section 3(h)

requires a proposed FHSA rule to include a preliminary regulatory analysis. The preliminary regulatory analysis must include a preliminary description of the potential benefits and potential costs of the proposed regulation, including any benefits or costs that cannot be quantified in monetary terms, and an identification of those likely to receive the benefits and bear the costs. The preliminary regulatory analysis must include a discussion of the reasons why alternative or voluntary standards are not part of the proposed regulation. The preliminary regulatory analysis must also include a discussion of any reasonable alternatives to the proposed regulation.

This proposed rule does not propose new safety criteria or redefine the standard's acceptance criteria. Accordingly, an analysis of alternative or voluntary standards is not applicable. Due to the limited scope of these proposed amendments, the agency does not consider that there are any reasonable alternatives other than the technical amendments and exceptions being proposed.

The CPSC has analyzed the potential costs and benefits of the proposed rule; we expect there to be essentially no costs and modest benefits in the form of needed clarifications that will facilitate the testing and certification of bicycles. The proposed amendments would create exceptions to certain testing requirements, modify existing definitions to reflect current technology or changes in technology, clarify certain requirements, introduce a definition for recumbent bicycles, correct typographical errors, and delete an unnecessary and outdated reference. These changes are not expected to result in product modifications in order to comply, and do not require any additional testing or recordkeeping burdens. The clarifications and exceptions resulting from the proposed amendments could, in fact, result in modest cost savings to manufacturers in the form of more focused testing or the elimination of unnecessary testing.

III. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), 5 U.S.C. chapter 6, requires the agency to evaluate the economic impact of this proposed rule on small entities. The RFA defines small entities to include small businesses, small organizations, and small governmental jurisdictions. The small entities relevant to this proposed rule are small businesses. The agency must determine whether the proposed rule would impose a significant economic impact on a substantial number of small businesses.

The proposed rule will not have a significant economic impact. The proposed amendments would create exceptions to certain testing requirements, modify existing definitions to reflect current technology or changes in technology, clarify certain requirements, introduce a definition for recumbent bicycles, correct typographical errors, and delete an unnecessary and outdated reference. These changes are not expected to result in product modifications in order to comply and do not require any additional testing or recordkeeping burdens. The clarifications and exceptions resulting from the proposed amendments could result in modest cost savings to small businesses in the form of more focused testing or the elimination of unnecessary testing.

Accordingly, the Commission determines that the proposed rule will not have a significant economic effect on a substantial number of small entities.

IV. Paperwork Reduction Act

The purposes of the Paperwork Reduction Act of 1995 (PRA), 44 U.S.C. 3501 et seq., include minimizing the paperwork burden on affected entities. The PRA requires certain actions before an agency can adopt or revise the collection of information, including publishing a

summary of the collection of information and a brief description of the need for, and proposed use of, the information.

This proposed rule does not implicate the PRA, because there are no collection of information obligations associated with the proposed amendments to part 1512.

V. Environmental Considerations

The proposed rule falls within the scope of the Commission's environmental review regulations at 16 CFR § 1021.5(c)(1), which provide a categorical exclusion from any requirement for the agency to prepare an environmental assessment or environmental impact statement for amendments of rules or safety standards that provide design or performance requirements for products.

VI. Effective Date

The Commission proposes that any final rule based on this proposal become effective 30 days after its date of publication in the Federal Register.

List of Subjects in 16 CFR Part 1512

Bicycles, Consumer protection, Labeling.

For the reasons discussed in the preamble, the Consumer Product Safety Commission proposes to amend 16 CFR part 1512 as follows:

PART 1512 — REQUIREMENTS FOR BICYCLES

1. The authority citation for part 1512 continues to read as follows:

Authority: Secs. 2(f)(1)(D), (q)(1)(A), (s), 3(e)(1), 74 Stat. 372, 374, 375, as amended, 80 Stat. 1304–05, 83 Stat. 187–89 (15 U.S.C. 1261, 1262); Pub. L. 107–319, 116 Stat. 2776.

2. Amend §1512.2 by revising paragraphs (b) and (d) and adding paragraph (g) to read as follows:

§ 1512.2 Definitions.

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(b) Sidewalk bicycle means a bicycle with a seat height of no more than 635 mm (25.0 in); the seat height is measured with the seat adjusted to its highest position. Recumbent bicycles are not included in this definition.

*****

(d) Track bicycle means a bicycle designed and intended for sale as a competitive velodrome machine having single crank-to-wheel ratio, and no free-wheeling feature between the rear wheel and the crank.

*****

(g) Recumbent bicycle means a bicycle in which the rider sits in a reclined position with the feet extended forward to the pedals.

3. Amend § 1512.4 by revising paragraphs (b) and (i) to read as follows:

§ 1512.4 Mechanical requirements.

*****

(b) Sharp edges. There shall be no unfinished sheared metal edges or other sharp parts on assembled bicycles that are, or may be, exposed to hands or legs; sheared metal edges that are not rolled shall be finished so as to remove any feathering of edges, or any burrs or spurs caused during the shearing process.

*****

(i) Control cable ends. Ends of all accessible control cables shall be provided with protective caps or otherwise treated to prevent unraveling. Protective caps shall be tested in accordance with the protective cap and end-mounted devices test, § 1512.18(c), and shall withstand a pull of 8.9 N (2.0 lbf).

*****

4. Amend § 1512.6 by revising paragraphs (a) and (c) to read as follows:

§ 1512.6 Requirements for steering system.

(a) Handlebar stem insertion mark. Quill-type handlebar stems shall contain a permanent ring or mark which clearly indicates the minimum insertion depth of the handlebar stem into the fork assembly. The insertion mark shall not affect the structural integrity of the stem and shall not be less than 2 1/2 times the stem diameter from the lowest point of the stem. The stem strength shall be maintained for at least a length of one shaft diameter below the mark.

*****

(c) Handlebar. Handlebars shall allow comfortable and safe control of the bicycle. Handlebar ends shall be symmetrically located with respect to the longitudinal axis of the bicycle and no more than 406 mm (16 in) above the seat surface when the seat is in its lowest position

and the handlebar ends are in their highest position. This requirement does not apply to recumbent bicycles.

*****

5. Amend § 1512.12 by revising paragraph (b) to read as follows:

§ 1512.12 Requirements for wheel hubs.

*****

(b) Quick-release devices. Lever-operated, quick-release devices shall be adjustable to allow setting the lever position for tightness. Quick-release levers shall be clearly visible to the rider and shall indicate whether the levers are in a locked or unlocked position. Quick-release clamp action shall emboss the frame or fork when locked, except on carbon fiber material.

*****

6. Amend § 1512.15 by revising paragraphs (a) and (b) to read as follows:

§ 1512.15 Requirements for seat.

(a) Seat Limitations. No part of the seat, seat supports, or accessories attached to the seat shall be more than 125 mm (5.0 in) above the top of the seat surface at the point where the seat surface is intersected by the seat post axis. This requirement does not apply to recumbent bicycles.

(b) Seat post. The seat post shall contain a permanent mark or ring that clearly indicates the minimum insertion depth (maximum seat-height adjustment); the mark shall not affect the structural integrity of the seat post. This mark shall be located no less than two seat-post diameters from the lowest point on the post shaft, and the post strength shall be maintained for at least a length of one shaft diameter below the mark. This requirement does not apply to bicycles

with integrated seat masts.

*****

7. Amend § 1512.18 by revising paragraphs (k)(1)(i) and (n)(2)(vii) as follows:

*****

(k) ***

(1) ***

(i) Procedure. With the fork stem supported in a 76 mm (3.0 in) vee block and secured by the method illustrated in figure 1 of this part 1512, a load shall be applied at the axle attachment in a direction perpendicular to the centerline of the stem and against the direction of the rake. Load and deflection readings shall be recorded and plotted at the point of loading.

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(n) ***

(2) ***

(viii) A recommended coordinate system for definition of color is the "Internationale de l'Eclairage (CIE 1931)" system. In the coordinate system and when illuminated by the source defined in table 4 of this part 1512, a reflector will be considered to be red if its color falls within the region bounded by the red spectrum locus and the lines $y = 0.980 - x$ and $y = 0.335$; a reflector will be considered to be amber if its color falls within the region bounded by the yellow spectrum locus and the lines $y = 0.382$, $y = 0.790 - 0.667x$, and $y = x - 0.120$.

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Dated: _____.

Todd A. Stevenson,

Secretary, Consumer Product Safety Commission.