



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

This document has been electronically
 approved and signed.

DATE: November 15, 2017

BALLOT VOTE SHEET

TO: The Commission
 Alberta E. Mills, Acting Secretary

THROUGH: Patricia M. Hanz, General Counsel
 Patricia H. Adkins, Executive Director

FROM: Patricia M. Pollitzer, Assistant General Counsel
 David M. DiMatteo, Attorney, OGC

SUBJECT: Proposed Revision of ASTM F963 Mandatory Toy Standard

BALLOT VOTE DUE: Tuesday, November 21, 2017

Attached is a staff briefing package recommending that the Commission allow revisions in ASTM F963-17 to become mandatory, with one exception. ASTM notified the Commission of these revisions on September 1, 2017. Under section 106(g) of the Consumer Product Safety Improvement Act of 2008, the revised standard shall be considered a consumer product safety standard issued by the Commission, unless the Commission notifies ASTM that the Commission has determined that the proposed revision does not improve safety. The Commission must decide by November 30, 2017, whether to allow ASTM F963-17 to go into effect. If the Commission allows ASTM F963-17 to become the new mandatory standard, it would become effective on February 28, 2018. As discussed in the briefing package, staff recommends that the Commission allow ASTM F963-17 to become the CPSC mandatory standard, with the exception of exemption language in Section 8.20.1.5 (5). Staff also recommends that the Commission publish a direct final rule amending the toy standard at 16 C.F.R part 1250 to update the reference to ASTM F963, and amend the notice of requirements in 16 C.F.R. part 1112 to reflect the revisions in ASTM F963. A draft *Federal Register* notice for that purpose is attached.

Please indicate your vote on the following options:

- I. Allow ASTM F963-17 (with the exception of exemption language in Section 8.20.1.5 (5)) to become CPSC’s mandatory standard, and approve publication in the *Federal Register* of the draft direct final rule, as drafted.

 Signature

 Date

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

II. Allow ASTM F963-17, with changes as specified by the Commission, to become CPSC's mandatory standard, and approve publication in the *Federal Register* of the draft direct final rule with revisions to reflect the Commission's changes (please specify changes).

Signature

Date

III. Do not allow ASTM F963-17 to become CPSC's mandatory standard, and do not approve publication in the *Federal Register* of the draft direct final rule.

Signature

Date

IV. Take other action (please specify).

Signature

Date

Attachment: Staff Briefing Package, Notice of Revision to the Toy Standard, ASTM F963
Standard Consumer Safety Specification for Toy Safety

CONSUMER PRODUCT SAFETY COMMISSION

[Docket No. CPSC-2017-0010]

16 CFR Parts 1112 and 1250

Safety Standard Mandating ASTM F963 for Toys

AGENCY: Consumer Product Safety Commission.

ACTION: Direct final rule.

SUMMARY: Section 106 of the Consumer Product Safety Improvement Act (CPSIA) made ASTM F963-07 ϵ 1, *Standard Consumer Safety Specification for Toy Safety*, a mandatory consumer product safety standard. That section also provides procedures for revisions to the standard. In accordance with these procedures, the Commission (CPSC or Commission) recently allowed the update to ASTM F963, ASTM F963-17, *Standard Consumer Safety Specification for Toy Safety* (ASTM F963-17), to become the mandatory toy standard, with one exception. This direct final rule incorporates by reference ASTM F963-17, with one exception, and updates the existing notice of requirements (NOR) that provides the criteria and process for Commission acceptance of accreditation of third party conformity assessment bodies for testing for ASTM F963 pursuant to the Consumer Product Safety Act (CPSA).

DATES: The rule is effective on February 28, 2018, unless we receive significant adverse comment by **[insert date 30 days after publication in the FEDERAL REGISTER]**. If we receive timely significant adverse comment, we will publish notification in the *Federal Register*, withdrawing this direct final rule before its effective

date. The incorporation by reference of the publication listed in this rule is approved by the Director of the Federal Register, as of February 28, 2018.

ADDRESSES: You may submit comments, identified by Docket No. CPSC-2017-0010, by any of the following methods:

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 www.regulations.gov.

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, 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 notice. All comments received may be posted without change, including any personal identifiers, contact information, or other personal information provided, to <http://www.regulations.gov>. Do not submit confidential business information, trade secret information, or other sensitive or protected information electronically. Such information should be submitted in writing.

FOR FURTHER INFORMATION CONTACT: For information related to the toy standard, contact: Carolyn T. Manley, Lead Compliance Officer, Office of Compliance

and Field Operations, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814-4408; telephone: 301-504-7607; email: cmanley@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

Section 106 of the Consumer Product Safety Improvement Act of 2008.

Section 106(a) of the CPSIA mandated that beginning on February 10, 2009, ASTM F 963–07¹, *Standard Consumer Safety Specifications for Toy Safety*¹, shall be considered a mandatory consumer product safety standard issued by the CPSC. Pub. L. 110–314. Since ASTM F963 was first mandated in 2009, there have been three revisions, ASTM F963–08, ASTM F963-11, and ASTM F963-16. Currently, the provisions of ASTM F 963–16 are considered consumer product safety standards issued by the Commission under section 9 of the CPSA. Under section 106(g) of the CPSIA, if ASTM proposes revisions to ASTM F963, ASTM must notify the Commission. The revised standard shall be considered to be a consumer product safety standard issued by the CPSC under section 9 of the CPSA (15 U.S.C. 2058), effective 180 days after the date on which ASTM notifies the Commission of the revision, unless, within 90 days after receiving that notice, the Commission notifies ASTM that it has determined that the proposed revision does not improve the safety of toys.

Codification of Safety Standard Mandating ASTM F963 for Toys. As stated above, the CPSIA mandated provisions of ASTM F963 as a consumer product safety standard. Because this action took place by statute, the standard did not appear in the

¹ Except for section 4.2 and Annex 4 or any provision that restates or incorporates an existing mandatory standard or ban promulgated by the Commission or by statute.

Code of Federal Regulations. On February 2, 2017, the Commission published a direct final rule notifying the public that the Commission had allowed ASTM F963-16 to become the new CPSC standard and also incorporated that standard by reference at 16 CFR part 1250. 82 FR 8989. Thus, when revisions of F963 become the new CPSC standard, the Commission will amend 16 CFR part 1250 to revise the reference to the ASTM standard. As explained below, the Commission is amending 16 CFR part 1250 to incorporate by reference ASTM F963-17, except for one provision.²

Notification of Revisions. On September 1, 2017, ASTM notified the CPSC of ASTM's approval and publication of revisions to ASTM F963-17 in a revised standard approved on May 1, 2017, ASTM F963-17, *Standard Consumer Safety Specification for Toy Safety*. On [INSERT DATE OF COMMISSION VOTE], the Commission voted to allow the provisions of ASTM F963-17 to become the CPSC mandatory toy standard, with one exception. As discussed below, the Commission has reviewed the differences between ASTM F963-16 and ASTM F963-17 (the revised toy standard).

B. Revisions to the ASTM Standard

ASTM F963-17 contains various grammatical corrections, editorial corrections, and substantive changes to provisions concerning projectiles and sound-producing toys. The 2017 revision was published less than 1 year after ASTM F963-16 to correct some of the drafting errors found in ASTM F963-16. In particular, ASTM notified CPSC staff of negative consequences of a 2016 drafting error. In response, CPSC used enforcement

² 16 CFR part 1250 continues to exclude from CPSC's mandatory standard certain provisions of ASTM F963 that the CPSIA excluded by statute.

discretion in March 2017, regarding testing and certification requirements in one section of ASTM F963-16 that concerned low-energy projectiles with stored energy.

The changes from ASTM F963-16 to ASTM F963-17 are summarized below:

- **Scope:** Minor editorial changes only.
- **Referenced documents:** Nine new references were added that were mostly related to microbiological guidelines.
- **Terminology:** One definition was removed, one definition was clarified, and one definition was changed editorially.
- **Safety Requirements:** One substantive clarification was made to section 4.21.2, Projectiles Toys with Stored Energy; one non-substantive clarification was made to section 4.21.3, Projectiles Toys without Stored Energy; and one clarification was made to section 4.21.3, Projectiles Toys without Stored Energy. One of the three clarifications (section 4.21.2) had been balloted and approved by the ASTM F15 Committee for Consumer Products for inclusion in the 2016 version, but the wording in section 4.21.2.3 was inadvertently omitted in the test method associated with kinetic energy (KE) of stored energy projectiles in the ASTM F963-16 revision.
- **Labeling Requirements:** Minor editorial changes only.
- **Instructional Literature:** Minor editorial changes only.
- **Test Methods:** An additional sentence was added to the sound-producing toys test method in Section 8.20.1.5 (5). This sentence functionally exempts pull/push toys from the A-weighted maximum sound pressure level (L_{AFmax})

requirement. As explained below, the Commission is not including this language in the mandatory standard.

- **Annex:** The rationale was added addressing the new language in 4.21.2.3 for projectiles with stored energy.

The majority of the editorial revisions changed the word “must” to “shall,” which brings the revised standard in line with ASTM’s current preferred language. In addition, new reference documents, references to tables/figures, and other editorial corrections were completed to fix known grammatical errors and incorrect references in the ASTM F963-16 version.

Two changes were substantive in nature. The first change, relating to requirements for projectile toys (Section 4.21), was a clarification that will neither increase, nor decrease, safety. The Commission had anticipated this change. However, the second change, relating to sound-producing toys, is substantive and reduces safety. This item was not balloted and was not reviewed by CPSC staff before ASTM published ASTM F963-17. ASTM added a sentence to the sound-producing toys test method in Section 8.20.1.5 (5) of ASTM F963-17 that functionally exempts push/pull toys from the A-weighted maximum sound pressure level (L_{AFmax}) requirement. The L_{AFmax} is a measurement of continuous sound. Without the L_{AFmax} requirement, push/pull toys will only be subject to the L_{Cpeak} requirement, a requirement that is based on noise limits for impulse sounds (*e.g.*, gun shots), not the continuous sounds, such as regular popping or clacking, which would be expected from push/pull toys. The Commission’s interpretation that the L_{AFmax} requirement applied to push/pull toys in ASTM F963-16 is based on the text of the standard.

The additional text added in ASTM F963-17 is a substantial change that reduces safety, because the additional text in Section 8.20.1.5 (5) provides an exemption for push/pull toys to the L_{AFmax} requirement, which did not exist in ASTM F963-16. If such toys are exempt from the L_{AFmax} requirement, they would be allowed on the market, even though their continuous sound level is greater than the standard permits for other floor toys. The Commission finds that the addition of text in Section 8.20.1.5(5) related to sound-producing toy requirements will decrease safety by allowing toys that produce sound levels that exceed noise exposure limits by the National Institute of Occupational and Health (NIOSH).³ Staff concludes that the L_{AFmax} exemption has a negative impact on safety. Additionally, the exemption will reduce harmonization with EN-71. *See* Tab A of the staff briefing package [\[INSERT LINK\]](#) for a more detailed discussion regarding the exemption's effect on safety.

Because addition of the text in Section 8.20.1.5(5) of ASTM F 963-17 would not improve the safety of toys, the Commission determined that this provision should not be allowed to become part of CPSC's mandatory toy standard. The other changes are either editorial non-substantive changes that will not affect safety, or they are substantive changes that will improve safety. Thus, the Commission accepts all changes in ASTM F963-17, with the exception of the addition of text in Section 8.20.1.5 (5) because it reduces safety.

³ ASTM F963 sound limit calculations are based on occupation exposure limits recommended by NIOSH.

C. Incorporation by Reference

Although ASTM F963-17 is mandatory by operation of statute, the Commission has incorporated by reference ASTM F963 in the Code of Federal Regulations (CFR) to indicate that ASTM F963 is a CPSC mandatory standard.

The Office of the Federal Register (OFR) has regulations concerning incorporation by reference. 1 CFR part 51. Under these regulations, agencies must discuss, in the preamble to the final rule, ways that the materials the agency incorporates by reference are reasonably available to interested persons and how interested parties can obtain the materials. In addition, the preamble to the final rule must summarize the material. 1 CFR 51.5(b).

In accordance with the OFR's requirements, section B of this preamble summarizes the ASTM F963-17 standard that the Commission incorporates by reference into 16 CFR part 1250. The standard is reasonably available to interested parties, and interested parties may purchase a copy of the standard from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959 USA; phone: 610-832-9585; <http://www.astm.org/>. A copy of the standard can also be inspected at CPSC's Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923.

D. Certification

Section 14(a) of the CPSA imposes the requirement that products subject to a consumer product safety rule under the CPSA, or to a similar rule, ban, standard, or regulation under any other act enforced by the Commission, be certified as complying with all applicable CPSC requirements. 15 U.S.C. 2063(a). Such certification must be

based on a test of each product, or on a reasonable testing program or, for children's products, on tests on a sufficient number of samples by a third party conformity assessment body accredited by the Commission to test according to the applicable requirements. As noted in the preceding discussion, standards issued under section 106(f)(1)(B) are "consumer product safety standards." Thus, they are subject to the testing and certification requirements of section 14 of the CPSA.

Because toys are children's products, samples of these products must be tested by a third party conformity assessment body whose accreditation has been accepted by the Commission. These products also must comply with all other applicable CPSC requirements, such as the lead content requirements of section 101 of the CPSIA, the phthalates prohibitions of section 106 of the CPSIA, and the tracking label requirement in section 14(a)(5) of the CPSA.

E. Notice of Requirements

In accordance with section 14(a)(3)(B)(vi) of the CPSA, the Commission has previously published three NORs for accreditation of third party conformity assessment bodies for testing toys (76 FR 46598 (Aug. 3, 2011), 78 FR 15836 (March 12, 2013), and 82 FR 8989 (February 2, 2017)). The last NOR provided the criteria and process for our acceptance of accreditation of third party conformity assessment bodies for testing toys to ASTM F963-16. The NOR for ASTM F963-16 is listed in the Commission's rule, "Requirements Pertaining to Third Party Conformity Assessment Bodies." 16 CFR part 1112.

The previous NOR for the toy safety standard included 37 sections from ASTM F963-16 that required third party testing.

Certain provisions of ASTM F963-17 do not require third party testing as was the case in the previous NORs issued for ASTM F963. The ASTM F963-17 provisions that do not require third party testing are in the following areas:

- Any provision of ASTM F963 that section 106 of the CPSIA excepted from being a mandatory consumer product safety standards issued by the Commission. The CPSIA also excepted from ASTM F963, any provision that restates or incorporates an existing mandatory standard or ban promulgated by the Commission or by statute. In addition, the CPSIA excepted provisions from ASTM F963 that restate or incorporate a regulation promulgated by the Food and Drug Administration or any statute administered by the U.S. Food and Drug Administration. Section 4, Public Law 112-28, Aug 12, 2011.
- Those sections of ASTM F963–17 that pertain to the manufacturing process and, thus, cannot be evaluated meaningfully by a test of the finished product (*e.g.*, the purified water provision at section 4.3.6.1).
- Those provisions of ASTM F963-17 with requirements for labeling, instructional literature, or producer’s markings.
- Those provision in ASTM F963–17 that sets a limit for a DI (2-ethylhexyl) phthalate in pacifiers, rattles, and teethers. This section is excepted from third party testing because section 108 of the CPSIA sets limits for this and other phthalates that are more stringent than this requirement in ASTM F963-17.

This latest revision of the toy safety standard, ASTM F963-17, had a much shorter period between revisions than is typical. In the earlier revisions, the transition period for CPSC acceptance of laboratory accreditation and the certification effective

dates allowed adequate time for laboratories to update their accreditations to the latest standard. The revisions in earlier versions of the standard typically included several substantive changes in test requirements and testing methods. This is not the case when comparing ASTM F963-17 to ASTM F963-16. In response to the directions in the ASTM F963-16 NOR, testing laboratories began working with their accreditation bodies to update their scope of accreditation to include references to ASTM F963-16.

Since issuance of the ASTM F963-16 NOR, the CPSC has accepted applications from more than 100 testing laboratories for sections in ASTM F963-16 and posted the information for each laboratory on the CPSC website. However, there are still more than 100 CPSC-accepted laboratories that are listed only for ASTM F963-11 and have not yet updated their accreditation scope to include ASTM F963-16. Many of these laboratories may be in the process of updating their accreditation scope to ASTM F963-16. Other laboratories may be waiting on Commission action regarding adoption of ASTM F963-17 and the NOR for ASTM F963-17.

To address the transition just described, the Commission is permitting acceptance of testing that supports ASTM F963-17 certification, and acceptance of laboratory accreditation that take into account testing laboratories that are already CPSC-accepted for testing to relevant sections in ASTM F963-16, ASTM F963-11, and ASTM F963-07^{e1} Section 4.27, as described below.

- 1. CPSC Automatically Accepts Laboratories for ASTM F963-17, if the Laboratories Are CPSC-accepted to ASTM F963-16*

The CPSC's online laboratory application and website listing for testing laboratories that have been CPSC-accepted to sections in ASTM F963-16 will be

modified to show CPSC-acceptance to “ASTM F963-16/ASTM F963-17.” For example, CPSC-accepted laboratories currently listed on the CPSC website for:

- 4.6 (ASTM F963-16), Small Objects
- 4.7 (ASTM F963-16), Accessible Edges
- 4.8 (ASTM F963-16), Projections

will be changed on the CPSC website to read:

- 4.6 (ASTM F963-16/ASTM F963-17), Small Objects
- 4.7 (ASTM F963-16/ASTM F963-17), Accessible Edges
- 4.8 (ASTM F963-16/ASTM F963-17), Projections

This will accommodate laboratories that updated their accreditation scope and received CPSC acceptance shortly after issuance of the ASTM F963-16 NOR.

For laboratories that are accredited to ASTM F963-11 and that have not yet updated their scope to later versions, they may elect scope revisions to reflect ASTM F963-16 or ASTM F963-17, or both. When these laboratories apply to the CPSC, the CPSC will accept references to either the -16 or -17 version, and the lab will be listed on the CPSC website for “4.x (ASTM F963-16/ASTM F963-17).”

This will provide an equitable approach for all the third party laboratories that applied and were CPSC-accepted for sections in ASTM F963-16 and for testing laboratories that are currently working with their accreditation bodies to update the ASTM F963 references in their accreditation scope. In addition, this will allow laboratories that are CPSC-listed for “ASTM F963-16/ASTM F963-17” to conduct testing to support certification to the -16 and -17 versions ASTM F963.

2. Maintain the Interim Allowance for Laboratories Accredited to ASTM F963-11 to Test for ASTM F963-16 and ASTM F963-17

The NOR for ASTM F963-16 that was issued on February 2, 2017 (82 FR 8989), provided a transition period for CPSC-accepted labs to support certification testing to ASTM F963-16. During the transition period, CPSC will accept ASTM F963-16 testing results by test laboratories that are CPSC-accepted to ASTM F963-11 sections, or ASTM F963-07^{ε1} section 4.27 for toy chests, for a period not to exceed 2 years. The 2-year period ends on February 4, 2019. This allowance was to provide adequate time for testing laboratories to work with their accreditation bodies, make official updates to their accreditation scope to include ASTM F963-16 sections, and submit applications to the CPSC. The ASTM F963-17 NOR will continue the transition period provided in the ASTM F963-16 NOR. The CPSC will accept ASTM F963-17 testing results by laboratories that are CPSC-accepted to ASTM sections in F963-11 (or 4.27 of ASTM F963-07^{ε1}) until February 4, 2019.

The CPSC will open the application process for all sections of ASTM F963-17 when this direct final rule is published in the *Federal Register* as an amendment to 16 CFR part 1112. The CPSC is providing notice of these requirements through this direct final rule and through direct email to all current CPSC-accepted laboratories and their accreditation bodies. This process will avoid disruption to continuous third party testing to the toy safety standard and allow for a practicable transition from ASTM F963-11 to ASTM F963-16 to ASTM F963-17 for testing laboratories, the toy industry, and other interested parties.

F. Direct Final Rule Process

The Commission is issuing this rule as a direct final rule. Although the Administrative Procedure Act (APA) generally requires notice and comment rulemaking, section 553 of the APA provides an exception when the agency, for good cause, finds that notice and public procedure are “impracticable, unnecessary, or contrary to the public interest.” The Commission concludes that notice and comment is unnecessary because ASTM F963 automatically becomes a consumer product safety standard by operation of law. The Commission has voted to allow ASTM F963-17 to become the mandatory CPSC standard. Even without the incorporation by reference, ASTM F963-17, except for Section 8.20.1.5 (5) and provisions the CPSIA excluded, will take effect as the new mandatory CPSC standard pursuant to section 106(g) of the CPSIA. This rule amends 16 CFR part 1250 to reflect the standard that CPSC has allowed under section 106(g) of the CPSIA. Because this document merely incorporates by reference a standard that takes effect by operation of statute, public comment could not affect the changes to the standard or the effect of the revised standard as a consumer product safety standard under section 106(g) of the CPSIA. The rule also updates the corresponding provisions of the NOR for ASTM F963 in part 1112 to reflect the revision to the standard. The amendment to part 1112 does not establish substantive requirements, but updates the criteria and process for CPSC’s acceptance of accreditation of third party conformity assessment bodies for testing toys under the revised ASTM F963 standard. Therefore, the Commission concludes that public comment is not necessary.

The Commission believes that issuing a direct final rule in these circumstances is appropriate. In Recommendation 95-4, the Administrative Conference of the United

States (ACUS) endorsed direct final rulemaking as an appropriate procedure to expedite promulgation of rules that are noncontroversial and that are not expected to generate significant adverse comment. *See* 60 FR 43108 (August 18, 1995). ACUS also recommended using direct final rulemaking when an agency uses the “unnecessary” prong of the good cause exemption to notice and comment rulemaking. Consistent with the ACUS recommendation, the Commission is publishing this rule as a direct final rule because we do not believe comment is necessary and do not expect any significant adverse comments to the direct final rule.

Unless we receive a significant adverse comment within 30 days, the rule will become effective on February 28, 2018. In accordance with ACUS’s recommendation, the Commission considers a significant adverse comment to be one where the commenter explains why the rule revising the incorporation by reference would be inappropriate. We note that comments on the underlying substantive provisions of ASTM F963-17 are not considered significant adverse comments because those provisions are mandatory by operation of the statute, and therefore, the Commission cannot change them in response to comments. The Commission could only make changes to the way the incorporation by reference appears in the CFR.

Should the Commission receive significant adverse comment, the Commission would withdraw this direct final rule. Depending on the comments and other circumstances, the Commission may then incorporate the adverse comment into a subsequent direct final rule or publish a notice of proposed rulemaking, providing an opportunity for public comment.

G. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires that agencies review proposed and final rules for their potential economic impact on small entities, including small businesses, and prepare regulatory flexibility analyses. 5 U.S.C. 603 and 604. The RFA applies to any rule that is subject to notice and comment procedures under section 553 of the APA. 5 U.S.C. 603 and 604. As explained above, the Commission has determined that notice and comment is not necessary for this direct final rule. We also note the limited nature of this document. The incorporation by reference of ASTM F963-17 and the update to the notice of requirements in part 1112 will not result in any substantive changes to the standard. Thus, the rule does not create new substantive obligations for any entity, including any small entity. Rather, with this action, the CFR will reflect the mandatory CPSC standard that takes effect under the CPSIA and will update the corresponding NOR provisions in 16 CFR part 1112.

H. Paperwork Reduction Act

The toy standard contains information collection requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). OMB has approved the collection of information for ASTM F963 under OMB Control No. 3041-0159.

I. Environmental Considerations

The Commission’s regulations provide a categorical exclusion for the Commission’s rules from any requirement to prepare an environmental assessment or an environmental impact statement because they “have little or no potential for affecting the human environment.” 16 CFR 1021.5(c)(2). This rule falls within the categorical

exclusion, so no environmental assessment or environmental impact statement is required.

J. Preemption

Section 26(a) of the CPSA, 15 U.S.C. 2075(a), provides that where a “consumer product safety standard under [the CPSA]” is in effect and applies to a product, no state or political subdivision of a state may either establish or continue in effect a requirement dealing with the same risk of injury, unless the state requirement is identical to the federal standard. Section 26(c) of the CPSA also provides that states or political subdivisions of states may apply to the Commission for an exemption from this preemption under certain circumstances.

Section 106(f) of the CPSIA states that rules issued under that section “shall be considered consumer product safety standards issued by the Commission under section of the Consumer Product Safety Act” thus, implying that the preemptive effect of section 26(a) of the CPSA would apply. Therefore, a rule issued under section 106 of the CPSIA will invoke the preemptive effect of section 26(a) of the CPSA when it becomes effective.

K. Effective Date

Under the procedure set forth in section 106(g) of the CPSIA, when ASTM revises ASTM F963, the revision becomes the CPSC standard within 180 days of notification to the Commission, unless the Commission determines that the revision does not improve the safety of the product. In accordance with this provision, this rule establishes an effective date that is 180 days after we received notification from ASTM of revisions to the standard. As discussed in section F of this preamble, this is a direct final

rule. Unless we receive a significant adverse comment within 30 days, the rule will become effective on February 28, 2018. Additionally, the effective date for the NOR is February 28, 2018, the same date that the provisions of ASTM F963-17 become effective.

List of Subjects

16 CFR Part 1112

Administrative practice and procedure, Audit, Consumer protection, Incorporation by reference, Reporting and recordkeeping requirements, Third party conformity assessment body.

16 CFR Part 1250

Consumer protection, Imports, Incorporation by reference, Infants and children, Law enforcement, Safety, Toys.

For the reasons discussed in the preamble, the Commission amends 16 CFR chapter II, as follows:

PART 1112—REQUIREMENTS PERTAINING TO THIRD PARTY

CONFORMITY ASSESSMENT BODIES

1. The authority citation for part 1112 is continues to read as follows:

Authority: 15 U.S.C. 2063; Pub. L. 110–314, section 3, 122 Stat. 3016, 3017 (2008).

2. Amend § 1112.15 by:

- a. Revising the introductory text to paragraph (b)(32);
- b. Revising (b)(32)(ii); and

c. Revising paragraph (c)(1)(ii).

The revisions read as follows:

§ 1112.15 When can a third party conformity assessment body apply for CPSC acceptance for a particular CPSC rule or test method?

* * * * *

(b) * * *

(32) 16 CFR part 1250, safety standard for toys. The CPSC only requires certain provisions of ASTM F963-17 to be subject to third party testing; and therefore, the CPSC only accepts the accreditation of third party conformity assessment bodies for testing under the following toy safety standards:

* * * * *

(ii) ASTM F963-17:

* * * * *

(c) * * *

(1) * * *

(ii) ASTM F963-17, “Standard Consumer Safety Specification for Toy Safety,” May 1, 2017.

* * * * *

PART 1250—SAFETY STANDARD MANDATING ASTM F963 FOR TOYS

3. The authority citation for part 1250 continues to read as follows:

Authority: Pub. L. 110–314, sec. 106, 122 Stat. 3016 (August 14, 2008); Pub. L. 112–28, 125 Stat. 273 (August 12, 2011).

4. Amend § 1250.2 by:

- a. Revising paragraph (a); and
- b. Adding paragraph (c).

The revisions and additions read as follows:

§ 1250.2 Requirements for toy safety.

(a) Except as provided for in paragraphs (b) and (c) of this section, toys must comply with the provisions of ASTM F963-17, Standard Consumer Safety Specification for Toy Safety, approved May 1, 2017. The Director of the Federal Register approves the incorporation by reference listed in this section in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy of this ASTM standard from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959 USA; phone: 610-832-9585; <http://www.astm.org/>. You may inspect a copy at the Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

* * * * *

(c) Instead of complying with section 8.20.1.5(5) of ASTM F963-17, comply with the following:

(1) Floor and tabletop toys that move, where the sound is caused as a result of the movement imparted on the toy (for example, a noise making mechanism attached to an axle of a toy vehicle) shall be tested using the method for push and pull toys. In addition

DRAFT November 15, 2017

to the C-weighted peak measurement maximum A-weighted sound pressure level, L_{AFmax} , shall be made and compared to the requirements of 4.5.1.2.

(2) [Reserved]

Dated:

Alberta E. Mills, Acting Secretary
U.S. Consumer Product Safety Commission



Staff Briefing Package

Notice of Revision to ASTM F963

Standard Consumer Safety Specification for Toy Safety

November 15, 2017

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TABLE OF CONTENTS

BRIEFING MEMORANDUM	iii
I. Introduction	4
II. Discussion	5
A. Overview of the Differences between ASTM F963 –16 and ASTM F963 –17	5
B. Staff’s Assessment of the Revised Standard	6
C. Effective Date.....	7
D. Certification, Testing, and CPSC Acceptance of Third Party Laboratories	8
III. Recommendations	8
TAB A: TECHNICAL ANALYSIS OF CHANGES BETWEEN ASTM F963 –16 AND ASTM F963 –17	10
TAB B: THIRD PARTY TESTING TO THE ASTM F963 –17 STANDARD FOR TOY SAFETY AND NOTICE OF REQUIREMENTS FOR ACCREDITATION OF THIRD PARTY CONFORMITY ASSESSMENT BODIES FOR ASTM F963 –17	23

BRIEFING MEMORANDUM

This document has been electronically
approved and signed.

DATE: November 15, 2017

TO: The Commission
Alberta E. Mills, Acting Secretary

THROUGH: Patricia H. Adkins, Executive Director
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Patricia M. Hanz, General Counsel

FROM: George A. Borlase, Ph.D., Assistant Executive Director
Office of Hazard Identification and Reduction

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Directorate for Laboratory Sciences

SUBJECT: Staff Recommendation Regarding Revisions to ASTM F963 *Standard Consumer Safety Specification for Toy Safety*

Notice of Requirements for Accreditation of Third Party Conformity Assessment Bodies
for ASTM F963 –17

I. Introduction

Section 106(a) of the Consumer Product Safety Improvement Act of 2008 (CPSIA) mandated that beginning on February 10, 2009, ASTM F963 – 07 ϵ ,¹ *Standard Consumer Safety Specifications for Toy Safety*,¹ shall be considered a mandatory consumer product safety standard issued by the Consumer Product Safety Commission (CPSC, or the Commission). The CPSIA states that if ASTM proposes revisions to ASTM F963, ASTM must notify the Commission. The revised standard shall be considered to be a consumer product safety standard issued by the CPSC under Section 9 of the Consumer Product Safety Act (CPSA)(15 U.S.C. 2058), effective 180 days after the date on which ASTM notifies the Commission of the revision, unless, within 90 days after receiving that notice, the Commission notifies ASTM that the Commission has determined that the proposed revision decreases the safety of toys.

Since ASTM F963 was first mandated in 2009, there have been three previous revisions: ASTM F963 – 08, ASTM F963 –11, and ASTM F963 –16. All revisions² were accepted by the Commission to become the mandatory safety standard for toys. On February 2, 2017, the Commission published a direct final rule that incorporated by reference ASTM F963 –16, except for certain provisions excluded under Section 106 of the CPSIA. 82 FR 8989 (codified at 16 C.F.R. part 1250).

¹ Except for Section 4.2 and Annex 4 or any provision that restates or incorporates an existing mandatory standard or ban promulgated by the Commission or by statute.

² Except for Section 4.27 (regarding toy chests) of ASTM F963 –07 ϵ ¹, which remained in effect until the ASTM F963 –16 reintroduced the toy chest provisions.

On September 1, 2017, ASTM notified the Commission that a revised standard, ASTM F963 –17, had been published to replace ASTM F963 –16. The 2017 revision was published less than 1 year after ASTM F963 –16 to correct some of the drafting errors found in ASTM F963 –16. In particular, ASTM notified CPSC staff of negative consequences of a 2016 drafting error concerning the exemption for projectile toys with stored energy exhibiting low kinetic energy. In response, CPSC used enforcement discretion regarding testing and certification requirements to one section on projectiles with stored energy.³

This briefing memorandum and attached technical memoranda outline and assess the differences between the current mandatory toy standard, ASTM F963–16, and the proposed revision, ASTM F963–17. Staff believes that the majority of the changes in the proposed revision are editorial, non-substantive clarifications or additions that improve toy safety. However, staff identified one substantive change in the projectile toy requirements (Section 4.21.), which staff believes will not have an effect on toy safety. More significantly, staff identified one change to the sound-producing toys test method (Section 8.20) that staff believes is substantive and reduces safety. Staff believes that the additional text provides an exemption for push/pull toys that was not present in F963 –16. For this reason, staff concludes that the proposed revision to Section 8.20 in ASTM F963 –17 reduces safety. Because staff believes that the majority of changes are either neutral or beneficial, staff recommends that the Commission accept all changes in F963 –17, with the exception of the change to the sound-producing toys test method in Section 8.20.1.5(5).

Should the Commission vote to allow ASTM F963 –17 to take effect as the new mandatory toy safety standard, the Commission must amend 16 C.F.R. part 1250 to reference the 2017 version to have the CFR reflect the correct version of the ASTM standard. In addition, the Commission must revise the notice of requirements (NOR) in 16 C.F.R. part 1112, to modify the rules for CPSC acceptance of accreditation of testing laboratories to reflect the provisions in ASTM F963 –17. The NOR would also address the transition from ASTM F963 –16 to ASTM F963 –17 regarding CPSC acceptance of testing results to support product certification. Tab B has the staff’s recommendations for the ASTM F963 –17 NOR.

II. Discussion

A. Overview of the Differences between ASTM F963 –16 and ASTM F963 –17

The proposed revision, F963 –17, contains various grammatical corrections, editorial corrections, and substantive changes to provisions concerning projectiles and sound-producing toys. The majority of the editorial changes involved changing the word “must” to “shall,” which brings the revised standard in line with ASTM’s current preferred language. In addition, new reference documents, references to tables/figures, and other editorial corrections were completed to fix known grammatical and incorrect reference issues in the -16 revision. The changes, summarized below, are analyzed in Tab A:

³ https://www.cpsc.gov/s3fs-public/TIA_projectile%20toys_let_3.31.17.pdf

1. **Scope:** Minor editorial changes only (does not affect safety).
2. **Referenced documents:** Nine new references were added that were mostly related to microbiological guidelines (does not affect safety).
3. **Terminology:** One definition was removed, one definition was clarified, and one definition was editorially changed (does not affect safety).
4. **Safety Requirements:** One substantive clarification was made to Section 4.21.2, *Projectile Toys with Stored Energy* (does not affect safety), and one non-substantive clarification was made to Section 4.21.3 *Projectile Toys without Stored Energy* (does not affect safety).
5. **Labeling Requirements:** Minor editorial changes only (does not affect safety).
6. **Instructional Literature:** Minor editorial changes only (does not affect safety).
8. **Test Methods:** An additional clarification was added to the sound-producing toys test method in Section 8.20.1.5 (5) (reduces safety). This sentence functionally exempts push/pull toys from the A-weighted maximum sound pressure level (L_{AFmax}) requirement. As explained below, staff recommends that the Commission not allow this provision to be included in the CPSC mandatory standard.
- A. **Annex:** The rationale was added addressing the new language in 4.21.2.3 for projectiles with stored energy (does not affect safety).

One of the three clarifications (Section 4.21.2) was previously balloted and approved by the ASTM F15 Committee for Consumer Products, but was inadvertently left out of the -16 revision. ASTM considers projectiles with resilient leading edges (≤ 70 Shore A durometer) are deemed “highly unlikely” to cause eye injury if they exhibit a kinetic energy equal to 0.08 J or less. Due to this conclusion, and to reduce testing burden, projectiles that do not exhibit a kinetic energy greater than 0.08 J are not subject to further testing to the kinetic energy density (KED) requirements (2500 J/m^2). The KED requirement was introduced in the -16 revision, and the kinetic energy exemptions for both stored and non-stored energy projectiles were balloted and approved by the F15 Committee on Consumer Products. However, this exemption for projectile toys with stored energy was erroneously omitted from the revision. Staff believes this clarification will not affect safety.

The second clarification (Section 4.21.3), which states . . . *when tested in accordance with 8.14.5 . . .*, was submitted by CPSC staff to reference the correct testing section, balloted, and approved for consistency with Section 4.21.2. Staff believes this clarification will not affect safety.

The third clarification, the additional text Section 8.20.1.5 (5): “The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of requirements for push/pull toys are given in 4.5 (7),” was added by ASTM as an editorial change and was not balloted. ASTM asserts that the change was editorial because it was a clarification to the F963 –16 standard, and therefore, was not considered by ASTM to be a substantive change. Staff believes that the additional text is substantive in nature and decreases safety because it provides an exemption for push/pull toys to the L_{AFmax} requirement, a requirement that staff believes applied to push/pull toys in F963 –16.

B. Staff’s Assessment of the Revised Standard

Staff concludes that the majority of the changes in the proposed revision are editorial, non-substantive clarifications or additions that will increase safety; however, staff identified two substantive changes: an exemption in the projectile toy requirements (Section 4.21) and an exemption added to the sound-

producing toys test method (Section 8.20). The exemption in the projectile toys section was the subject of CPSC enforcement discretion, which the CPSC staff announced in a letter issued in March 2017. Wording in Section 4.21.2.3 was inadvertently omitted in the test method associated with kinetic energy (KE) of stored energy projectiles. The omission has been corrected in the 2017 revision. Staff concludes that the change to projectile toy requirements does not affect safety.

Staff concludes that the additional text in the sound-producing toys section, which states: *“The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of the requirements for push/pull toys are given in 4.5 (7),”* reduces safety. The additional text provides an exemption for push/pull toys to the maximum A-weighted sound pressure level, L_{AFmax} , requirement. Staff believes that the L_{AFmax} requirement applies to push/pull toys in the current standard, F963 –16. L_{AFmax} is a measurement of continuous noise. In contrast, the remaining requirement for push/pull toys F963 –17, the C-weighted peak sound level requirement L_{Cpeak} , is a measure of impulsive sound.

Staff performed calculations to assess the theoretical impact of the L_{AFmax} exemption on safety. Staff analyzed sound levels at the F963 –assumed exposure distance (25 cm), and at a notional “worst case” exposure distance provided by ASTM’s acoustics work group leadership for a standing child pushing a push toy (56 cm) and pulling a pull toy (68 cm). These calculations show that at all three analyzed exposure distances the exemption would allow toys that produce sound levels that exceed occupational noise exposure limits recommended by the National Institute of Occupational Safety and Health (NIOSH) to pass testing⁴. Because such toys would exceed the NIOSH noise limits, CPSC staff considers such toys to be dangerous to hearing. Staff also measured the sound levels produced by a sample push toy and a pull toy to assess the practical impact of the L_{AFmax} exemption on safety. Both toys failed the L_{AFmax} requirement, but passed the L_{Cpeak} requirement. In addition, both toys produced sound levels that exceeded NIOSH noise limits at 25 cm, and the push toy produced sound levels just below the limit at 56 cm. Although the tested pull toy produced levels below the limit at 68 cm, staff believes that it is likely that there are push/pull toys that produce higher sound levels on the market. Staff concludes that the L_{AFmax} exemption has both a negative theoretical and negative practical impact on safety. The exemption also reduces harmonization with EN-71.

C. Effective Date

According to Section 106 of the CPSIA, ASTM must notify the Commission of revisions to the toy standard (ASTM did so on September 1, 2017). The Commission has 90 days from the date of notification by ASTM (November 30, 2017) to respond to ASTM, if the Commission determines that the proposed revision does not improve the safety of the product. Unless the Commission objects to the proposed revision through notification to ASTM within the 90-day period, or specifies a later date, the revised ASTM standard will replace the current CPSC standard and become CPSC’s mandatory standard,

⁴ NIOSH limits are based on adult exposures and are the most stringent of the commonly used noise limits in the US. F963 and NIOSH use the same recommended exposure limit (85 dBA) and time-intensity trade off (3 dB), however F963 assumes a 1.5 hour exposure time per day and NIOSH assumes an 8-hour day. Staff calculations for this briefing package are based on the F963 –assumed 1.5 hour exposure time per day.

effective 180 days from notification (on February 28, 2018). The new standard applies only to toys manufactured on or after the effective date. Because this revision has been publicized by ASTM, by testing laboratories, and by the Toy Industry Alliance, staff believes that this date is adequate to put manufacturers, importers, and suppliers on notice of the new standard.

D. Certification, Testing, and CPSC Acceptance of Third Party Laboratories

Section 14(a)(2) of the CPSA requires that children's products subject to a children's product safety standard enforced by the Commission to be certified as complying with all applicable CPSC requirements. The certification must be based on tests by a third party conformity assessment body (testing laboratory), accredited by the Commission to test according to the applicable requirements of the CPSA. Section 14(a)(3) of the CPSA requires the Commission to publish an NOR for the accreditation of third party testing laboratories to assess whether a children's product conforms to the applicable children's product safety rule. The Commission has previously issued an NOR for the ASTM F963 standard currently in effect as CPSC's mandatory rule. 16 C.F.R. § 1112.15(b)(32).

If the Commission accepts the staff's recommendation to allow ASTM F963 –17 to take effect as the new mandatory toy safety standard, with the exception of Section 8.20.1.5 (5), the Commission must revise the existing NOR to establish the rules for CPSC acceptance of accreditation of testing laboratories for provisions in ASTM F963 –17. The NOR would also address the transition from ASTM F963 –16 to ASTM F963 –17 with respect to CPSC acceptance of testing results to support product certification (Tab B).

III. Recommendations

Staff recommends that the Commission accept all changes in ASTM F963 –17, with the exception of the addition of text in Section 8.20.1.5 (5), which states: "*The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of the requirements for push/pull toys are given in 4.5 (7).*" Staff recommends that the Commission issue a direct final rule amending 16 C.F.R. part 1250 to reflect this change. The Office of the General Counsel provides a draft *Federal Register* notice that incorporates by reference ASTM F963 –17, with the exception of the provisions that the CPSIA excepted, and the additional text in Section 8.20.1.5 (5), discussed above.

Staff also recommends that the Commission amend 16 C.F.R. part 1112 to revise the NOR for the toy standard to align with ASTM F963 –17. The NOR would also provide for a transition from ASTM F963 –16 to ASTM F963 –17 regarding CPSC acceptance of testing results that support compliance to the new ASTM F963 –17 standard. In addition, staff recommends an effective date for required third party testing to be the same as the effective date for the new standard. The draft *Federal Register* notice also includes the revision to 16 C.F.R. part 1112.

TAB A: TECHNICAL ANALYSIS OF CHANGES BETWEEN ASTM F963 –16 AND ASTM F963 –17

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**TAB A: TECHNICAL ANALYSIS OF CHANGES
BETWEEN ASTM F963 –16 AND ASTM F963 –17**



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

Memorandum

DATE: November 15, 2016

TO: Benjamin Mordecai, Mechanical Engineer/Project Manager, Toys

THROUGH: Joel Recht, Ph.D., Associate Executive Director, Directorate for Engineering Sciences
Andrew Stadnik, P.E., Associate Executive Director, Directorate for Laboratory Sciences

FROM: Kristen Talcott, Ph.D., Human Factors Engineer
Benjamin Mordecai, Mechanical Engineer/Project Manager, Toys

SUBJECT: Technical Analysis of Changes Between ASTM F963 –16 and ASTM F963 –17

I. Background

This memorandum compiles the technical analysis of CPSC's subject matter experts (SME) regarding the changes to ASTM F963. Staff outlines the differences between the current mandatory toy standard, ASTM F963 –16, and the new revised toy standard, ASTM F963 –17, and provides staff's assessment regarding the level of safety associated with toys.

II. Summary of Revisions

Staff reviewed all of the revisions to ASTM F963 –17. The majority of the editorial revisions changed the word “must” to “shall,” which brings the revised standard in line with ASTM's current preferred language. In addition, new reference documents, references to tables/figures, and other editorial corrections were completed to fix known grammatical and incorrect references in the -16 revision.

Staff found two substantive changes. The first change, relating to projectile toys, was an anticipated clarification that staff believes will not affect toy safety, as detailed in Section III A below. The second change, relating to sound-producing toys, was an unexpected change that staff believes will decrease the safety of the toys covered by the standard, as detailed in Section III B below.

III. Substantial Changes Between ASTM F963 –11 and ASTM-16

A. *Projectile Toys*

One of the primary hazards associated with projectile toys is impact to the eye from discharge of the projectile. ASTM F963 –17 has included a substantive clarification that was inadvertently left out of the ASTM F963 –16 revision, which is discussed below.

Changes in the Current Revision

Section 4 - Safety Requirements:

4.21.2 Projectile toys with stored energy:

Section 4.21.2.3:

Projectiles with resilient leading edges (≤ 70 Shore A durometer) are deemed “highly unlikely” to cause eye injury if they exhibit a kinetic energy equal to 0.08 J or less. Due to this conclusion, and to reduce testing burden, projectiles that do not exhibit a kinetic energy greater than 0.08 J are not subject to further testing to the kinetic energy density (KED) requirements (2500 J/m²). The KED requirement was introduced in the -16 revision and the kinetic energy exemptions for both stored and non-stored energy projectiles was balloted and approved by the F15 on Consumer Products, however, this exemption for projectile toys with stored energy was erroneously left off the revision.

Annex A13 Rationale for 2017 Revision – Only one rationale has been included for the projectile revision, which is discussed below:

A13.1 – New language has been added under projectile toys with stored energy to indicate that the kinetic energy density requirement is only required if the kinetic energy of the projectile exceeds 0.08 J. Without this addition, kinetic energy density testing would be performed on all projectile toys with stored energy whether or not they present a reasonable risk of injury, exhibiting a kinetic energy greater than 0.08 J. Additionally, certain types of projectiles covered by the omitted exemption have been common in the market for decades, without history of injury. Without this added language, those projectiles would not meet the standard, as written. This new added language further aligns ASTM F963 –17 with ISO 8124-1 and EN71-1.

Staff Analysis of Changes Related to Projectile Toys

Staff agrees with the additional clarification to Section 4.21, as explained above. Staff understands and agrees with the rationales listed under Annex A13 for projectiles. Staff believes the addition will neither increase, nor decrease, toy safety.

B. Sound-Producing Toys

Background

Section 4.5 of ASTM F963 –16 and ASTM F963 –17 establish requirements intended to minimize hearing damage from toys designed to produce sound. Within this section, there are three measures of sound level:

1. The A-weighted¹ equivalent sound pressure level, L_{Aeq} ,
2. The maximum A-weighted sound pressure level, L_{AFmax} ,
3. The C-weighted peak sound pressure level, L_{Cpeak} .

Both L_{Aeq} and L_{AFmax} are measures of continuous sound. “Continuous sound” is defined in F963 –11 as “any steady-state sound or group of variable sounds greater than one second in duration.” L_{Aeq} is the averaged A-weighted sound level over the entire use cycle as defined in Section 8.20.1.5. L_{AFmax} is the maximum sound level of a set of averaged A-weighted sound levels with the “fast” (125 ms) time constant applied. L_{Cpeak} is a measure of impulsive sound. “Impulsive sound” is defined in F963 –11 as, “any sound that is characterized by a brief excursion of sound pressure significantly exceeding the ambient noise, typically less than one second in duration.” L_{Cpeak} is the maximum (true peak) C-weighted sound pressure level with no time constant applied.

¹ A-weighting or C-weighting is typically applied to sounds to represent more accurately the frequency response of the human ear. Both reduce the weighting of lower and higher frequencies in calculation of overall sound level. The response curve for C-weighting is flatter than that for A-weighting, which reflects the human ear response to higher-level sounds.

It is important to note that occupational exposure limits, such as those promulgated by the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), and the U.S. Department of Defense are based on equivalent and peak sound pressure levels. There is no analog to the L_{AFmax} measure. Staff believes that ASTM uses L_{AFmax} as a proxy for L_{Aeq} for sounds that are produced by translation motion because it is difficult to maintain a constant sound measuring distance for toys in motion. Because L_{AFmax} is a maximum value, it may overestimate the overall sound level of variable sounds.

Sounds produced by toys are subject to requirements based on categories related to (1) the expected exposure distance when a child interacts with the toy, (2) whether the sound produced is continuous or impulsive, and (3) how the toy produces the sound. For example: sounds produced by close-to-the-ear toys are required to meet lower sound level limits than floor and tabletop toys because it is assumed that children will play with a close-to-the-ear toy by holding it to their ear (2.5 cm assumed exposure distance) and will play with a floor or tabletop toy at arm's length or greater (25 cm assumed exposure distance). Impulsive sounds, which have a short duration, have higher sound level limits than continuous sounds. Rattles, which produce sounds when shaken, have a different requirement than other handheld toys.

Section 4.5 lists seven types of sounds to which the sound-producing toy requirements do not apply:

1. Sounds produced by mouth-actuated toys, where the sound pressure level is determined by the blowing action of the child;
2. Sounds such as those produced by xylophones, bells, drums, and squeeze toys, where the sound pressure level is determined by the muscular action of the child. This exemption does not apply to rattles which are subject to the C-weighted peak requirement;
3. Sounds produced by radios, MP3 players, CD players, and other similar electronic toys and toys, where the sound output depends on the content of removable media, such as discs, flash cards, or Internet-downloaded content;
4. Sounds produced by toys that are connected to, or interfaced with, external devices, such as televisions and computers, where the sound pressure level is determined by the external device;
5. Sound emitted from earphones/headphones;
6. Sounds produced by toys that reproduce or alter the child's voice, such as walkie-talkies, recording devices, megaphones, and kazoos;
7. Sounds quantified by A-weighted equivalent sound pressure level, L_{Aeq} , produced by pull and push toys as a result of pulling or pushing. This exemption does not apply to the C-weighted peak requirement which is applicable.

This section is referred to as the "exemption list" in staff's analysis. Sections 4.5.1 through 4.5.1.6 list the specific requirements. Section 8.20, *Tests for Toys Which Produce Noise*, describes the test methods.

Changes in the Current Revision

Section 8 - Test Methods:

In F963 –17, ASTM added the following text to Section 8.20.1.5 (5) as an editorial change: "*The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of requirements for push/pull toys are given in 4.5 (7).*" This change was not balloted. ASTM asserts that the change was

editorial on the basis that it was a clarification to the F963 –16 standard, and therefore, was not considered by ASTM to be a substantive change.

Staff Analysis of Changes Related to Sound-Producing Toys

Staff believes that ASTM’s addition of “*The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of requirements for push/pull toys are given in 4.5 (7)*” in Section 8.20.1.5 (5) of F963 –17 is a substantive change that decreases safety. The additional text provides an exemption to the L_{AFmax} requirement for push/pull toys, a requirement that staff believes applied to push/pull toys in F963 –16.

Staff and ASTM’s acoustics work group leadership disagree about whether the L_{AFmax} requirement applied to push/pull toys in F963 –16. Staff’s interpretation of F963 –16 was based on the definitions of “push/pull toys” and “tabletop, floor, and crib toys,” as well as the description of scope in the L_{AFmax} requirement. Section 3.1.69² defined a “push/pull toy” as: “*a toy with a cord/tether or a handle attached to the toy and where the toy is intended for use on the ground with the child in a standing/upright position, typically walking, while using the toy.*” Section 3.1.88³ defined “tabletop, floor, and crib toys” as: “*toys intended to be played with while attached to or resting on a table top, floor, or crib. Examples of such toys include, but are not limited to, toy vehicles, stacking toys, large and bulky toys, games, and activity toys that attach to crib rails.*” Because push/pull toys are intended to be played with while resting on the floor, staff believes that it is clear that they are a subset of “tabletop, floor, and crib toys.” Section 4.5.1.2 defined the L_{AFmax} requirement as: “*[t]he maximum A-weighted sound pressure level, L_{AFmax} produced by the translational motion of floor or table top toys where the motion is imparted on the toy by the child . . . shall not exceed 85 dB.*” Staff believes that because push/pull toys are floor toys, the sound produced by their translational motion, *i.e.* by pushing and pulling imparted on the toy by the child, fell within the scope of this requirement. Staff believes that staff’s interpretation of F963 –16 was reasonable, based on the text as written. Importantly, ASTM subcommittee leadership said that the clarification in F963 –17 was needed because several testing labs also had questions about the L_{AFmax} requirement applying to push/pull toys. This supports staff’s interpretation of the language in F963 –16 and provides another indication that the addition of text to Section 8.20.1.5 should be considered substantive, and not editorial.

Staff and ASTM’s acoustics work group leadership also disagree about the impact of the push/pull toy L_{AFmax} exemption on safety. Without the L_{AFmax} requirement, push/pull toys will only be subject to the L_{Cpeak} requirement, a requirement that is based on noise limits for impulse sounds (*e.g.*, gun shots), not the continuous sounds, such as repetitive popping or clacking, which would be expected from push/pull toys.

² The numbering in Section 3.1 in F963 –17 was changed due to the removal of a definition. The definition for “push/pull toy” was provided in Section 3.1.69 in F963 –16 and is provided in Section 3.1.68 in F963 –17.

³ The definition for “tabletop, floor, and crib toys” was provided in Section 3.1.88 in F963 –16 and is provided in Section 3.1.87 in F963 –17.

Staff believes that the L_{AFmax} exemption will decrease safety by allowing push/pull toys to exceed sound limits that are applied to other floor toys. ASTM acoustics workgroup leadership argues that push/pull toys should have different requirements than other floor toys because they have a greater expected use distance, and thus, a greater sound exposure distance than other floor toys. “Push/pull toys,” as defined in F963, are intended for use in a standing/upright position; F963 assumes that floor toys will be used at arm’s length (25 cm). ASTM subcommittee leadership asserts that the L_{AFmax} exemption for push/pull toys has no practical impact on safety because a toy that produces enough noise to be considered hazardous at the expected use distance, *i.e.*, a standing child pushing or pulling a toy, would be impractically loud, *i.e.*, so loud that a manufacturer would not bring it to market.

To assess whether the overall changes in F963 –17 reduce safety, staff examined the theoretical and practical implications of the push/pull toy L_{AFmax} exemption, using calculations and sound level measurements taken from a convenience sample of push/pull toys. Staff analyzed sound levels at the F963 –assumed exposure distance (25 cm), and at a notional “worst case” exposure distance provided by ASTM’s acoustics work group leadership for a standing child pushing a push toy (56 cm) and pulling a pull toy (68 cm).

To examine the theoretical impact on safety, staff compared the allowable sound level without the L_{AFmax} exemption, the L_{Cpeak} limit of 115 dB, to the noise exposure limits recommended by NIOSH.⁴ A push/pull toy that passes F963 –17, as written, could theoretically produce a continuous 115 dB sound⁵ at the test distance of 50 cm, which equates to an estimated 121 dB at 25 cm, 114 dB at 56 cm, and 112 dB at 68 cm. Using NIOSH calculations, 121 dB is considered dangerous to hearing after 7 seconds of exposure; 114 dB is considered dangerous to hearing after 35 seconds of exposure; and 112 dB is considered dangerous to hearing after 56 seconds of exposure. Because all of these overexposure times are far less than the F963 assumption of 1.5 hours of play in a day, staff believes that the push/pull toy L_{AFmax} exemption has a strong negative theoretical impact on safety.

To examine the practical effect on safety, staff measured sound levels of a lawnmower push toy and a vehicle pull toy using the push/pull toy test method in Section 8.20.2.5 of F983-16. Staff measured a L_{AFmax} of 93.1 dB and a L_{Cpeak} of 107.4 dB for the toy lawnmower push toy and a L_{AFmax} of 91.1 dB and L_{Cpeak} of 105.8 dB for the toy vehicle pull toy at the 50 cm test distance. Based on these results, both toys fail the 85 dB L_{AFmax} requirement, but they pass the 115 dB L_{Cpeak} requirement. Thus, if such toys are exempt from the L_{AFmax} requirement, as they would be under F963 –17, then they would be allowed on the market, even though their continuous sound level is greater than the standard permits for other floor

⁴ NIOSH allows for time-weighted exposure of 85 dBA at the ear continuous noise in an 8-hour day. F963 adjusts the 8-hour day to an assumed 1.5 hours of play in a 24-hour period, which translates to 92.3 dB time weighted average at the ear. Both NIOSH and F963 use a 3 dB exchange rate, which means that for every 3 dB increase in sound level, allowable exposure time is halved.

⁵ In this analysis, staff is assuming the A-weighted and C-weighted sound level measurements are the same. The difference between A-weighted and C-weighted sound level measurements is based on the frequency components of the measured sound.

toys. In addition, the results show that there are toys on the market that would fail the requirement, as interpreted by staff, in F963 –16, but would pass the requirements in F963 –17.

The measured L_{AFmax} for the push toy equates to an estimated 99.1 dB at 25 cm. Using NIOSH calculations this sound level considered dangerous to hearing after 18.5 minutes of exposure. The measured L_{AFmax} for the pull toy equates an estimated 97.1 dB at 25 cm, which is considered dangerous to hearing after 29.3 minutes of exposure. Because both of these overexposure times are far less than the F963 assumption of 1.5 hours of play in a day, both of these toys are considered to be hazardous to hearing at the F963 –assumed exposure distance of 25 cm. At the “worst case” exposure distance provided by ASTM for a standing child pushing a push toy (56 cm), the estimated L_{AFmax} for the push toy is 92.1 dB, very close to the hazardous level of 92.3 dB. This means that if the toy is used just slightly closer to the sound source than the assumed 56 cm exposure distance, or the toy is played with for slightly longer than the estimated 1.5 hours of play in a day, the child could be exposed to hazardous sound levels. At the “worst case” exposure distance provided by ASTM for a standing child pulling a pull toy (68 cm), the estimated L_{AFmax} for the pull toy is 88.43 dB, which is below the level considered to be hazardous. Although staff acknowledges that the pull toy tested did not exceed the safe limit when ASTM’s increased use distance was taken into account, staff is concerned that there may be louder toys on the market. It is important to note that this testing was performed on a convenience sample and is likely not representative of the breadth of push/pull toys on the market. Based on these results, staff believes that it is likely that there are currently push/pull toys on the market that would be considered hazardous to hearing, even taking into account ASTM’s revised use of distance assumptions. Because these toys would be allowed under F963 –17, staff believes that the push/pull toy L_{AFmax} exemption has a negative practical impact on safety.

In addition, staff believes that the L_{AFmax} exemption will reduce harmonization with EN-71, which explicitly requires that push/pull toys meet a L_{AFmax} requirement. EN-71. BS EN 71-1:2014, Section 4.20.2.8 states:

The A-Weighted maximum emission sound pressure level, measured using a meter with time-weighting F, L_{AFmax} , produced when tested according to 8.28.2.7 at 50 cm by pull-along or push toys clearly designed to emit sound only as a result of movement imparted on the toy, shall not exceed 80 dB for exposure category 1 toys, 85 dB for exposure category 2 toys, and 90 dB for exposure category 3 toys.

Staff does not believe that the inclusion of a L_{AFmax} requirement increases test burden for third party test labs. The L_{AFmax} measurements can be collected simultaneously with the L_{Cpeak} measurements, using the same instrumentation. The only change to the test that may be required is to adjust the settings in the sound level meter or analysis software to display L_{AFmax} .

Staff concludes that staff’s interpretation that the L_{AFmax} requirement applied to push/pull toys in F963 –16 is reasonable, based on the text as written, and that the additional text in F963 –17 is a substantial change that provides an exemption for push/pull toys to the L_{AFmax} requirement. If the Commission accepts this exemption as written, sounds produced by push/pull toys from pushing or pulling would be permitted, unless they were exceptionally loud, regardless of the number or regularity of sounds during expected play. Based on staff’s analysis, staff concludes that the L_{AFmax} exemption has both a negative theoretical and negative practical impact on safety. The exemption also reduces harmonization with EN-

71. For these reasons, staff recommends that the Commission reject the additional text in Section 8.20.1.5.

Staff acknowledges ASTM acoustics work group leadership's argument that the L_{AFmax} requirement, as written, may be overly conservative for the expected push/pull toy use distance and staff plans to work with ASTM to revise future versions of the standard to reflect more accurately real-world exposures. Additional information on staff's interpretation of the L_{AFmax} requirement in the 2016 Briefing Package, staff's interpretation of the text added to Section 8.20.1.5 in F963 –17, and the history of the L_{AFmax} requirement and test method in F963 are provided below.

Staff's Interpretation of the L_{AFmax} Requirement in the 2016 Briefing Package

In 2016, staff prepared a briefing package that assessed changes from F963 –11 to F963 –16. Although staff had concerns about the reduction in push/pull toy test speed, staff concluded that, on balance, the changes related to sound-producing toys in F963 –16 maintained the current level of safety. This conclusion was based on staff's belief that the L_{AFmax} requirement in Section 4.5.1.2 applied to push/pull toys.

As stated above, staff based their interpretation of the L_{AFmax} requirement in F963 –16 on the definition of applicable sounds in the L_{AFmax} requirement in Section 4.5.1.2, the definition of "push/pull toys" in Section 3.1.69, and the definition of "tabletop, floor, and crib toys" in Section 3.1.87. Section 4.5.1.2 states that the L_{AFmax} requirement applies to sounds "produced by the translational motion of floor or table top toys where the motion is imparted on the toy by the child." Staff believes that the language "floor or table toys," clearly refers to "tabletop, floor, and crib toys," which are defined in Section 3.1.87 as "toys intended to be played with while attached to or resting on a table top, floor, or crib. Examples of such toys include, but are not limited to, toy vehicles, stacking toys, large and bulky toys, games, and activity toys that attach to crib rails." Although the list of example toys does not mention push/pull toys, it is not an exhaustive list of toys that fit this category. Section 3.1.69 defines a "push/pull toy" as: "a toy with a cord/tether or a handle attached to the toy and where the toy is intended for use on the ground with the child in a standing/upright position, typically walking, while using the toy." Staff believes that because push/pull toys are intended to be played with while resting on the floor, staff believes that it is clear that they are a subset of "floor or tabletop toys," as defined in Section 4.5.1.2. Furthermore, push/pull toys typically make sounds by their translational motion, *i.e.*, by the pushing and pulling imparted on the toy by the child. Therefore, it seems clear to staff that sounds "produced by the translational motion of floor or tabletop toys where the motion is imparted on the toy by the child" includes sounds produced by push/pull toys. The exemption list in Section 4.5 only states that the requirements for sound-producing toys "do not apply to: . . . (7) sounds quantified by A-weighted equivalent sound pressure level, L_{Aeq} , produced by pull and push toys as a result of pulling or pushing. This exemption does not apply to the C-weighted peak requirement which is applicable." There is no mention of a L_{AFmax} exemption for push/pull toys in Section 4.5.

Staff's interpretation of the categories of toys and the toys that were subject to L_{AFmax} testing in F963 –16 is summarized in Figure 1.

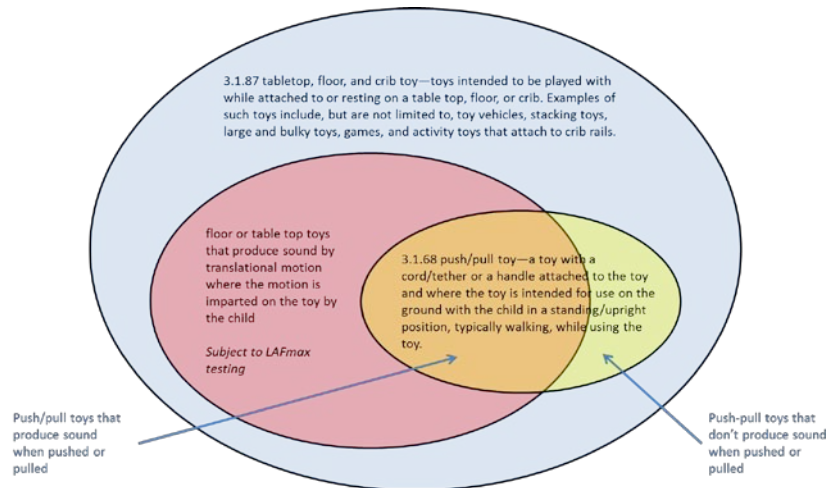


Figure 1: Staff’s Interpretation of Toys Subject to L_{AFmax} Testing in ASTM F963 –16.

Although “push/pull toys,” “floor and tabletop toys that move,” and “floor, tabletop, or crib toys” are discussed separately in Section 8.20, “Tests for Toys Which Produce Noise,” staff believes that this is because push/pull toys, along with floor and tabletop toys that move, require a separate test method from stationary and self-propelled floor, tabletop, or crib toys. Furthermore, Section 8.20.1.5 states: “[i]f the toy has features that allow it to fit into multiple categories in 8.20.2, it shall be tested per all applicable methods,” which suggests an inclusive testing approach.

Staff’s belief that the L_{AFmax} requirement applied to push/pull toys was central to staff’s conclusion that the changes from F963 –11 to F963 –16 maintained the current level of safety. Staff had concerns about the impact of the reduction in push/pull toy test speed from 2 m/s to 1 m/s, which staff believed were mitigated by the inclusion of the new L_{AFmax} requirement. Staff stated in the F963 –16 Briefing Package:

Although staff disagrees with the rationale for decreasing push-pull toy test speed provided in Annex A12 and believes that the reduction in test speed, when considered in isolation from the other changes to the standard, will allow toys that would have exceeded sound limits under the previous test protocol to pass testing, staff does believe that the additional rationale provided by the task group chairman justifies the change. When combined with the highly restrictive new limit of 85 dB for L_{AFmax} in Section 4.5.1.2 that harmonizes with EN71, staff believes that the overall changes for push-pull toys maintain the current level of safety.⁶ (p. 35)

In addition to the statement above, staff explicitly stated three times that the L_{AFmax} requirement applied to push/pull toys in the F963 –16 Briefing Package:

Section 4.5.1.2: A requirement was added that restricts the maximum A-weighted maximum sound pressure level (L_{AFmax}) to 85 dB for toys in which the sound level is produced by the translational motion of floor or tabletop toys where the motion is imparted on the toy by the child, including push/pull toys. (p. 32)

⁶ See F963 –16 Briefing Package available at: <https://www.cpsc.gov/s3fs-public/ProposedRevisionofASTMF963MandatoryToyStandard.pdf>, retrieved on 10/20/2017s.

The LAFmax requirement also applies to push-pull toys, which were previously exempt from any A-weighted sound pressure level testing. (p. 33)

Push-pull toys are subject to limits on maximum sound (L_{AFmax}) and peak sound (L_{Cpeak}), which can be produced by near-instantaneous action. (p. 35)

It is important to note that staff based its interpretation of the L_{AFmax} requirement on the text of F963 –16. At the time, staff was not aware of the history of the L_{AFmax} requirement in F963 or any other information that would suggest that staff’s interpretation was different from what ASTM intended.

Staff’s Interpretation of the Text Added to Section 8.20.1.5 in F963 –17

The full text of Section 8.20.1.5, with the text added in F963 –17 (underlined), is:

(5) Floor and tabletop toys that move, where the sound is caused as a result of the movement imparted on the toy (for example, a noise making mechanism attached to an axle of a toy vehicle) shall be tested using the method for push and pull toys. In addition to the C-weighted peak measurement a maximum A-weighted sound pressure level, L_{AFmax} shall be made and compared to the requirements of 4.5.1.2. The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of requirements for push/pull toys are given in 4.5 (7).

The F963 –16 version of Section 8.20.1.5 already referenced the L_{AFmax} requirement in Section 4.5.1.2. The text added in F963 –17 added two more references to this section: the definition of “push/pull toys” in Section 3.1.68, and the exemption for push pull/toys in the exemption list, Section 4.5 (7). Thus the relation of the L_{AFmax} requirement to push/pull toys in F963 –17 is described by four linked sections of text.

Staff interpreted Section 8.20.1.5 in F963 –16 to mean that all floor and tabletop toys that move, including push/pull toys, shall be tested using the method for push/pull toys, and that all of these toys shall also be tested to the L_{AFmax} requirement. The text added in F963 –17 precludes this interpretation because it explicitly states: “[t]he toys described in this section do not include push/pull toys.” The referenced text in the exemption list in Section 4.5 (7) states only that the exemption for sounds “produced by push/pull toys as a result of pushing or pulling . . . does not apply to the C-weighted peak requirement which is applicable.” Because Section 4.5 (7) does not mention L_{AFmax} , staff interprets the scope of the requirements for push/pull toys in F963 –17 to be only L_{Cpeak} . Staff believes that it is clear that the additional text in F963 –17 functionally exempts push/pull toys from testing to the L_{AFmax} requirement even though the L_{AFmax} requirement in Section 4.5.1.2 has the same text in both F963 –16 and F963 –17.

History of the L_{AFmax} Requirement and Test Method in F963

As part of the analysis for this briefing package, staff examined the history of the L_{AFmax} requirement and test method in previously published versions of F963. Staff found that there were changes relating to L_{AFmax} among all versions of the standard. ASTM first added a L_{AFmax} definition, requirement, and test

method in F963 –07.⁷ ASTM removed the L_{AFmax} requirement in F963 –08 and removed all mentions of L_{AFmax} in the test method section in F963 –11, leaving only the L_{AFmax} definition. A L_{AFmax} requirement and test method were reintroduced in F963 –16.

ASTM provides limited information on the rationale related to the L_{AFmax} revisions. In the “*Rationale for 2007 Revisions*,” ASTM provides a detailed explanation of the rationale and assumptions used to set the sound limits; however, there is no specific mention of L_{AFmax} . In the “*Rationale for 2008 Revisions*,” ASTM claims that the acoustic requirements were being interpreted by some laboratories to fail safe push/pull toys. Specifically, ASTM was concerned that the test method could not isolate sounds produced by the “*mechanism designed to produce sound*” from other sounds produced by the toy, that the assumed use distance was not representative of the true use distance, and that a child would not be able to sustain the maximum test speed of 2 m/s for meaningful amounts of time. ASTM also claimed that the change would increase harmonization with EN-71. There is no rationale provided for the changes to the sound-producing toys section in the “*Rationale for 2011 Revisions*.”

In the F15 (09-13) ballot issued on November 6, 2013, ASTM proposed the “push/pull toy” definition and associated rationale. In the F15 (14-08) ballot on November 10, 2014, ASTM proposed adding the text related to L_{AFmax} in Section 8.20.1.5 (5)⁸. The balloted text was:

Floor and tabletop toys that move, where the sound is caused as a result of the movement imparted on the toy (e.g. a noise making mechanism attached to an axle of a toy vehicle) shall be tested using the method for push and pull toys. In addition to the C-weighted peak measurement a maximum A-weighted sound pressure level, L_{AFmax} , shall be made and compared to the requirements of 4.5.1.2.

The related balloted rationale was: “[d]irection was added on how to test toys like toy vehicles that the child pushes where the sound comes from the movement of the toy.” At the time, there was no corresponding L_{AFmax} requirement in the standard. Instead, the text pointed to Section 4.5.1.2, which said: “[t]he A-weighted equivalent sound pressure level, L_{Aeq} , produced by all other toys except close-to-the-ear toys and push/pull toys shall not exceed 85 dB.” Although there was no mention of a L_{AFmax} exemption in the balloted text, staff believes that the reference from the L_{AFmax} test method in Section 8.20.1.5 (5) to the L_{Aeq} push/pull toy exemption in Section 4.5.1.2 provided some evidence that push/pull toys were intended to be exempt from L_{AFmax} testing.

⁷ The L_{AFmax} requirement in F963 –07 was: “The A-weighted equivalent sound pressure level, L_{Aeq} (maximum A-weighted sound pressure level, L_{Amax} , for pass-by tests), of continuous sounds produced by all other toys except close-to-the-ear toys shall not exceed 85 dB.” The pass-by test was used for “pull and push toys and hand-activated spring-propelled toys.” NOTE: The abbreviation “ L_{AFmax} ” is used in the definition, but “ L_{Amax} ” is used elsewhere in the document. The “F” denotes a fast detector response (time-weighting). Staff assumes that this is an unintentional omission and the fast response should be used for all “ L_{Amax} ” measurements.

⁸ Section 8.19.1.4 at the time.

Other changes to the sound-producing toys section in the F15 (14-08) ballot included changing the format and sequence of the test methods section to increase harmonization with EN-71, which had significantly changed between 2008 and 2014, and reducing the maximum test speed for push/pull toys from 2 m/s to 1 m/s.

At some point between the F15 (14-08) ballot and publication of F963 –16, ASTM made additional editorial (non-balloted) changes to the sound-producing toys section. These changes included creating the L_{AFmax} -specific requirement in Section 4.5.1.2, and moving the L_{Aeq} exemption for push/pull toys from what had been Section 4.5.1.2 to the Section 4.5 exemptions list. Importantly, these changes eliminated the link that had existed in the balloted version between the L_{AFmax} test method in Section 8.20.1.5 (5) and the push/pull toy exemption that had been in Section 4.5.1.2. Because of these changes, the connection that had existed in the balloted text between the L_{AFmax} test method and the L_{Aeq} push/pull toy exemption was lost.

Staff learned of the addition of text in Section 8.20.1.5 of F963 –17 when staff received the redlined version of F963 –17 on August 21, 2017, immediately before publication on August 23, 2017. The change had not been balloted, but was inserted as an editorial change. The Rationale section for the 2017 revisions does not state any justification for the exemption.

**TAB B: THIRD PARTY TESTING TO THE ASTM F963 –
17 STANDARD FOR TOY SAFETY AND NOTICE OF
REQUIREMENTS FOR ACCREDITATION OF THIRD
PARTY CONFORMITY ASSESSMENT BODIES FOR
ASTM F963 –17**

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UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

Memorandum

DATE: November 15, 2017

TO: Benjamin Mordecai, Mechanical Engineer
Directorate for Laboratory Sciences

FROM: Scott Heh
Program Manager, Third Party Laboratory Accreditation
Directorate for Laboratory Sciences

SUBJECT: Third Party Testing to the ASTM F963 –17 Standard for Toy Safety and Notice of Requirements for Accreditation of Third Party Conformity Assessment Bodies for ASTM F963 –17

I. Introduction

Section 106(a) of the Consumer Product Safety Improvement Act of 2008 (CPSIA) mandated that, beginning on February 10, 2009, ASTM F963 –07^{e1} *Standard Consumer Safety Specifications for Toy Safety*,¹ shall be considered a mandatory consumer product safety standard issued by the Consumer Product Safety Commission (CPSC, or the Commission). The CPSIA also provides that if ASTM revises ASTM F963, the revised standard shall be considered to be a consumer product safety standard issued by the CPSC under Section 9 of the Consumer Product Safety Act (15 U.S.C. 2058), effective 180 days after the date on which ASTM notifies the Commission of the revision, unless, within 90 days after receiving that notice, the Commission notifies ASTM that it has determined that the proposed revision does not improve the safety of toys.

On September 1, 2017, ASTM notified the Commission that a revised standard, ASTM F963 –17 had been published to replace ASTM F963 –16. Section 14(a)(3) of the CPSA requires the Commission to publish a notice of requirements (NOR) for the accreditation of third party testing laboratories to assess whether a children’s product conforms to the applicable children’s product safety rule. The Commission’s requirements for CPSC acceptance of third party testing laboratories are found in 16 C.F.R. part 1112 (hereafter referred to as “part 1112”). Currently, part 1112 states the criteria for laboratory acceptance and certification timing for specified sections of ASTM F963 –16. Should the Commission vote to allow ASTM F963 –17 to take effect as the new mandatory toy safety standard, as recommended by staff in the briefing package, the Commission must revise the current NOR to reflect ASTM F963 –17.

This memorandum presents staff’s recommendation for revising the existing NOR found in part 1112 to establish the rules for CPSC acceptance of accreditation of testing laboratories for provisions in ASTM F963 –17. The recommendation for revising the NOR also addresses the transition from ASTM F963 –16 to ASTM F963 –17 regarding acceptance of testing results to support product certification.

II. ASTM F963 –17 –Same Sections Excepted from Third Party Testing that Were Excepted in F963 –16 and Previous Versions

As in previous versions of ASTM F963, staff recommends that certain sections of ASTM F963 –17 be subject to third party testing and that other sections be excepted from third party testing. The recommendations by staff for excepted sections of the standard are the same recommendations that the Commission approved in NORs for third party testing and laboratory accreditation acceptance for ASTM F963 –08, ASTM F963 –11 and ASTM F963 –16. The portions of ASTM F963 –17 that staff recommends should be excepted from required third party testing are:

¹ Except for Section 4.2 and Annex 4 or any provision that restates or incorporates an existing mandatory standard or ban promulgated by the Commission or by statute.

- Any section of ASTM F963 that Section 106 of the CPSIA excepted as mandatory consumer product safety standards issued by the Commission. The ASTM toy safety standard that was referenced in the CPSIA is the ASTM F963 –07 version. The CPSIA excepted Section 4.2 and Annex 4 of ASTM F963 –07. These are flammability-related requirements and test methods.² The CPSIA also excepted from ASTM F963 any provision that restates or incorporates an existing mandatory standard or ban promulgated by the Commission or by statute. In addition, the CPSIA excepted sections from ASTM F963 that restate or incorporate a regulation promulgated by the Food and Drug Administration or any statute administered by the U.S. Food and Drug Administration [Section 4, Public Law No. 112-28 – Aug 12, 2011].
- Those sections of ASTM F963 –17 that pertain to the manufacturing process, and thus, cannot be evaluated meaningfully by a test of the finished product (*e.g.*, the purified water provision at Section 4.3.6.1) are also excepted.
- Those sections of ASTM F963 –17 with requirements for labeling, instructional literature, or producer’s markings are also excepted.
- The provision in ASTM F963 –17 that sets a limit for a dioctyl phthalate in pacifiers, rattles, and teethers. This section is recommended to be excepted from third party testing because Section 108 of the CPSIA sets limits for this and other phthalates that are more stringent than this requirement in ASTM F963 –17 and are mandated by the statute.

III. ASTM F963 –17 Compared to ASTM F963 –16

The previous NOR for the ASTM F963 toy safety standard included 37 sections from ASTM F963 –16. For the revisions to ASTM F963 –16 that were adopted into ASTM F963 –17, staff has concluded that the majority of changes are either editorial or non-substantial clarifications or additions. However, staff believes that the additional text in Section 8.20.1.5(5) constitutes a substantial change that will not improve safety. For this reason, staff recommends that the Commission accept all changes in ASTM F963 –17, except for the addition of text in Section 8.20.1.5 (5) that reads: “The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of requirements for push/pull toys are given in 4.5 (7).”

Staff concludes that the additional text in Section 8.20.1.5 (5) exempting push-pull toys from the L_{AFmax} requirement does not improve the safety of toys. Thus, staff recommends that the Commission allow ASTM F963 –17 to become the new CPSC standard, with the exception of Section 8.20.1.5 (5) and the provisions excluded under Section 106 of the CPSIA.

The staff recommends 37 sections of ASTM F963 –17 for required third party testing. These are the same 37 sections that were required for ASTM F963 –16.

Table 1. ASTM F963 –17 List of 37 Sections Recommended for Required Third Party Testing

² In the ASTM F963 –17 version of the standard, Annex 4 that has flammability testing procedures is in Annex 5.

Item Number	F963 –17 Section	Section Name
1	4.3.5.1(2)	Surface Coating Materials – Soluble Test for Metals
2	4.3.5.2	Toy Substrate Materials
3	4.3.6.3	Cleanliness of Liquids, Pastes, Putties, Gels, Powders and items of Avian Feather Origin (except for cosmetics and tests on formulations used to prevent microbial degradation)
4	4.3.7	Stuffing Materials
5	4.5	Sound Producing Toys (except the exclusion for push/pull toys. Push/pull toys shall be tested to the L _{AFmax} requirement)
6	4.6	Small Objects (except labeling and/or instructional literature requirements)
7	4.7	Accessible Edges (except labeling and/or instructional literature requirements)
8	4.8	Projections (except bath toy projections)
9	4.9	Accessible Points (except labeling and/or instructional literature requirements)
10	4.10	Wires or Rods
11	4.11	Nails and Fasteners
12	4.12	Plastic Film
13	4.13	Folding Mechanisms and Hinges
14	4.14	Cords, Straps, and Elastics
15	4.15	Stability and Overload Requirements
16	4.16	Confined Spaces
17	4.17	Wheels, Tires, and Axles
18	4.18	Holes, Clearances, and Accessibility of Mechanisms
19	4.19	Simulated Protective Devices (except labeling and/or instructional literature requirements)
20	4.20.1	Pacifiers with Rubber Nipples/Nitrosamine Test
21	4.20.2	Toy Pacifiers
22	4.21	Projectile Toys
23	4.22	Teethers and Teething Toys
24	4.23.1	Rattles with nearly spherical, hemispherical, or circular flared ends
25	4.24	Squeeze Toys
26	4.25	Battery-Operated Toys (except labeling and/or instructional literature requirements)
27	4.26	Toys Intended to Be Attached to a Crib or Playpen (except labeling and/or instructional literature requirements)
28	4.27	Stuffed and Beanbag-Type Toys
29	4.30	Toy Gun Marking
30	4.32	Certain Toys with Nearly Spherical Ends
31	4.35	Pompoms
32	4.36	Hemispheric-Shaped Objects
33	4.37	Yo-Yo Elastic Tether Toys
34	4.38	Magnets (except labeling and/or instructional literature requirements)
35	4.39	Jaw Entrapment in Handles and Steering Wheels
36	4.40	Expanding Materials
37	4.41	Toy Chests (except labeling and/or instructional literature requirements)

IV. Laboratory Competence and CPSC Acceptance of Accreditation

The Commission’s regulations at 16 C.F.R. part 1112 establish a baseline requirement that, to be considered for CPSC acceptance, a laboratory must be accredited to International Organization for Standardization (ISO)/International Electro-technical Commission (IEC) Standard ISO/IEC 17025:2005, “General Requirements for the Competence of Testing and Calibration Laboratories” (ISO/IEC 17025).

Laboratories that are ISO/IEC 17025 accredited have been assessed to have the technical and managerial competence to conduct testing in accordance with the standards and test methods that are listed in the laboratory's scope of accreditation. The scope of accreditation is issued and made publically available by the laboratory's accreditation body.

The CPSC accepts laboratory accreditations for the specified ASTM F963 sections that are published in the NOR. These sections become part of the menu of choices on the CPSC laboratory application form, which is submitted through the CPSC website, for which laboratories may apply for CPSC acceptance and listing on the CPSC website.

Given the description of the revisions in ASTM F963 –17, it is staff's opinion that testing laboratories that have been CPSC-accepted for sections in ASTM F963 –16 have already been accredited to conduct testing to those same sections ASTM F963 –17.

V. Acceptance of Accreditation and Third Party Testing to Support Certification to ASTM F963 –17

This latest revision of the toy safety standard, ASTM F963 –17, had a much shorter period between revisions than is typical. The previous revision years were ASTM F963 –16, ASTM F963 –11, and ASTM F963 –08. In the earlier revisions, the transition period for CPSC acceptance of laboratory accreditation and the certification effective dates allowed time for laboratories to update their accreditations to the latest standard. The revisions in earlier versions of the standard typically included several substantive changes in test requirements and testing methods. This is not the case when comparing ASTM F963 –17 to ASTM F963 –16.

In response to the directions in the ASTM F963 –16 NOR, testing laboratories began working with their accreditation bodies to update their scope of accreditation to include references to ASTM F963 –16.

Since the issuance of the NOR for ASTM F963 –16, the CPSC accepted applications from more than 100 testing laboratories for sections in ASTM F963 –16 and posted the information for each laboratory on the CPSC website. However, there are more than 100 CPSC-accepted laboratories that are listed only for ASTM F963 –11 and have not yet updated their accreditation scope to include ASTM F963 –16. Many of these laboratories may be in the process of updating their accreditation scope to ASTM F963 –16. Other laboratories may be waiting on the Commission to adopt ASTM F963 –17 and the NOR for ASTM F963 –17.

Staff recommends that the Commission approve an approach for acceptance of testing that supports ASTM F963 –17 certification, and acceptance of laboratory accreditation, which takes into account testing laboratories that are already CPSC-accepted for testing to relevant sections in ASTM F963 –16, ASTM F963 –11, and ASTM F963 –07^{e1} Section 4.27.

The proposed approach has two components:

A. CPSC Automatically Accepts Laboratories for ASTM F963 –17, if the Laboratories Are CPSC-accepted to ASTM F963 –16.

Staff recommends a change to the CPSC online laboratory application and website listing for testing laboratories that have been CPSC-accepted to sections in ASTM F963 –16. For each section in ASTM F963 –16, the CPSC website will be modified to show CPSC-acceptance to “ASTM F963 –16/ASTM F963 –17.” For example, CPSC-accepted laboratories for ASTM F963 –16 are shown on the CPSC website in the format below:

- 4.6 (ASTM F963 –16), Small Objects
- 4.7 (ASTM F963 –16), Accessible Edges
- 4.8 (ASTM F963 –16), Projections.

This will be changed on the CPSC website to read:

- 4.6 (ASTM F963 –16/ASTM F963 –17), Small Objects
- 4.7 (ASTM F963 –16/ASTM F963 –17), Accessible Edges
- 4.8 (ASTM F963 –16/ASTM F963 –17), Projections.

This proposed change will accommodate and not penalize the laboratories that updated their accreditation scope and received CPSC acceptance shortly after issuance of the ASTM F963 –16 NOR.

For laboratories that are accredited to ASTM F963 –11 and have not yet updated their scope to later versions, they may elect scope revisions to reflect ASTM F963 –16 or ASTM F963 –17, or both. When these labs apply to the CPSC, references to either the -16 or -17 version will be CPSC-accepted, and the lab will be listed on the CPSC website for “4.x (ASTM F963 –16/ASTM F963 –17).”

Staff suggests that this is an equitable approach for all of the third party laboratories that applied and were CPSC-accepted for sections in ASTM F963 –16 and for testing laboratories that are currently working with their accreditation bodies to update the ASTM F963 references in their accreditation scope.

With this approach, laboratories that are CPSC-listed for “ASTM F963 –16/ASTM F963 –17” may conduct testing to support certification to the -16 and -17 versions of ASTM F963.

B. Maintain the Interim Allowance for Laboratories Accredited to ASTM F963 –11 to Test for ASTM F963 –16 and ASTM F963 –17.

The NOR for ASTM F963 –16, which was issued on February 2, 2017 [82 FR 8989], provided a transition period for CPSC-accepted labs to support certification testing to ASTM F963 –16. The transition is that CPSC will accept ASTM F963 –16 testing results by test laboratories that are CPSC-accepted to ASTM F963 –11 sections, or ASTM F963 –07^{ε1} section 4.27 for toy chests, for a period not to exceed 2 years. The 2-year period ends on February 4, 2019. This allowance was to provide adequate time for testing laboratories to work with their accreditation bodies, make official updates to their accreditation scope to include ASTM F963 –16 sections, and submit applications to the CPSC. The staff recommends that the NOR for ASTM F963 –17 be consistent with the NOR for ASTM F963 –16 by maintaining this transition. The CPSC will accept ASTM F963 –17 testing results by laboratories that are CPSC-accepted to ASTM sections in F963 –11 (or 4.27 of ASTM F963 –07ε1) until February 4, 2019.

The CPSC will open the application process for all sections of ASTM F963 –17 (as shown in Table 1) when a NOR is published in the *Federal Register* as an amendment to 16 C.F.R. part 1112.

The CPSC would provide notice of these requirements through a *Federal Register* notice and through direct email to all current CPSC-accepted laboratories and their accreditation bodies.

This approach would avoid disruption of third party testing to the toy safety standard and allow for a practicable transition from ASTM F963 –11 to ASTM F963 –16 to ASTM F963 –17 for testing laboratories, the toy industry, and other interested parties.

VI. Recommendation

Staff recommends that the Commission publish a NOR in an amendment to 16 C.F.R. part 1112 for establishing the criteria for CPSC acceptance of accreditation of third party testing laboratories to conduct testing in accordance with ASTM F963 –17 with the exception of the addition of text in Section 8.20.1.5 (5), which states: “*The toys described in this section do not include push/pull toys as defined in 3.1.68. The scope of the requirements for push/pull toys are given in 4.5 (7).*” . As presented in this memorandum, the NOR would define the sections in ASTM F963 –17 that are required for third party testing. The NOR would also provide rules for a transition for laboratories that are accredited to earlier versions of ASTM F963 to conduct testing that supports compliance to the new ASTM F963 –17 standard.

In addition, staff recommends that third party testing be required for ASTM F963 –17 on the date that the standard takes effect.