

ANSI C18.4M-2017

## American National Standard for Portable Cells and Batteries—Environmental

Secretariat:

**National Electrical Manufacturers Association** 

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American National Standards Institute, Inc.

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#### Foreword (This foreword is not part of American National Standard C18.4M-2017.)

The purpose of this publication is to provide guidance on the proper scientific protocols for testing the environmental performance of batteries. This includes the symbols used to convey messages for collection, recycling, or other ideas; and the aspects and functional unit(s) to be included in assessing the environmental impact of batteries with modern life-cycle analysis techniques. While this publication covers portable primary cells and batteries, at the time of publication, the committee had started discussions about a similar publication for rechargeable batteries or inclusion of rechargeables in the next revision.

This latest edition improves upon the 2015 edition by including details for article information sheets, a compliance checklist, extended producer responsibility and refined information on US and international requirements for environmental aspects as they relate or do not relate to batteries.

Suggestions for improvement of this standard are welcome. They should be sent to:

National Electrical Manufacturers Association, 1300 North 17<sup>th</sup> Street, Suite 900, Rosslyn, VA 22209 Attention: Secretary ANSI ASC C18.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Portable Cells and Batteries, C18. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the C18 committee had the following members:

#### Steven Wicelinski, Chairman, Duracell, Inc.

Marcus Boolish, Vice-chairman, Energizer Brands, LLC Khaled Masri, Secretary, NEMA

| Name of Representative: |            | Organization Represented                   |
|-------------------------|------------|--|
| Heather                 | Peterson   | Batteries Plus Bulbs                       |
| Jason                   | Fladhammer | Batteries Plus Bulbs                       |
| David                   | Grandin    | Bureau Veritas Consumer Product Services   |
| S. Keel                 | Kelly      | Consultant                                 |
| Robert                  | Coughlin   | Consumer Product Integrity Consulting, LLC |
| Steven                  | Wicelinski | Duracell, Inc.                             |
| Marcus                  | Boolish    | Energizer Brands, LLC                      |
| Carin                   | Stuart     | Energizer Brands, LLC                      |
| Douglas                 | Golde      | Fisher-Price                               |
| Thomas                  | O'Hara     | Intertek                                   |
| Rich                    | Byczek     | Intertek                                   |
| Cary                    | Costello   | Kimberly-Clark Corporation                 |
| Jeff                    | Becker     | Micropower Battery Co.                     |
| Charles                 | Monahan    | Panasonic Corporation of North America     |
| Jody                    | Leber      | SGS North America                          |
| John                    | Hadley     | Spectrum Brands, Inc.                      |
| Denis                   | Carpenter  | Spectrum Brands, Inc.                      |
| Andy                    | Roszkowski | Spectrum Brands, Inc.                      |
| Laurie                  | Florence   | UL LLC                                     |
| Jeff                    | Ortega     | ZPower, LLC                                |
| Tim                     | Powers     | ZPower, LLC                                |

The following members of Subcommittee C18-4 for Environmental Aspects for Batteries contributed to the development of this standard:

Marcus Boolish, Chairman, Energizer Brands, LLC Charles Monahan, Vice-chairman, Panasonic Corporation of North America Khaled Masri, Secretary, NEMA

| Name of Rep | presentative: | Organization Represented                   |
|-------------|---------------|--|
| Jeff        | Becker        | Micropower Battery Co.                     |
| Marcus      | Boolish       | Energizer Brands, LLC                      |
| Denis       | Carpenter     | Spectrum Brands, Inc.                      |
| Cary        | Costello      | Kimberly-Clark Corporation                 |
| Robert      | Coughlin      | Consumer Product Integrity Consulting, LLC |
| Raju        | Desai         | Apple Inc.                                 |
| Jason       | Fladhammer    | Batteries Plus Bulbs                       |
| Laurie      | Florence      | UL LLC                                     |
| Douglas     | Golde         | Fisher-Price                               |
| David       | Grandin       | Bureau Veritas Consumer Product Services   |
| John        | Hadley        | Spectrum Brands, Inc.                      |
| Ray         | lveson        | Duracell, Inc.                             |
| Judith      | Jeevarajan    | Underwriters Laboratories Inc.             |
| S. Keel     | Kelly         | Consultant                                 |
| Jody        | Leber         | SGS North America                          |
| Douglas     | Lee           | U. S. Consumer Product Safety Commission   |
| Charles     | Monahan       | Panasonic Corporation of North America     |
| Thomas      | O'Hara        | Intertek                                   |
| Jeff        | Ortega        | ZPower, LLC                                |
| Heather     | Peterson      | Batteries Plus Bulbs                       |
| Tim         | Powers        | ZPower, LLC                                |
| Andy        | Roszkowski    | Spectrum Brands, Inc.                      |
| Hirotaka    | Shima         | Hitachi Maxell, Ltd.                       |
| Carin       | Stuart        | Energizer Brands, LLC                      |
| Steven      | Wicelinski    | Duracell, Inc.                             |

## Introduction

Every product has some effect on the environment during its manufacture, distribution, use, and disposal. These effects can range from slight to significant; they can be short-term or long-term; and they can occur at the global, regional, or local level. Provisions in battery standards can significantly influence the extent of these environmental effects.

Environmental stewardship in the battery industry embraces a multiplicity of activities, from design, manufacturing, transportation, storage, and recycling, to disposal of the batteries.

There are often questions on the applicability of regulations to batteries. This standard provides guidance on regulations applicable and not applicable to batteries, as well as procedures for measuring environmental characteristics.

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## 1 Scope

#### 1.1 Scope

This standard applies to all chemistries of portable primary cells and batteries standardized in the ANSI C18 series.