

American National Standard



ENVIRONMENTAL INDUSTRY A S S O C I A T I O N S

*for Equipment Technology and
Operations for Wastes and
Recyclable Materials –
**Baling Equipment –
Safety Requirements***



WASTE EQUIPMENT TECHNOLOGY ASSOCIATION
A PART OF THE
ENVIRONMENTAL INDUSTRY ASSOCIATIONS

4301 CONNECTICUT AVENUE, NW • SUITE 300 • WASHINGTON, DC 20008
TELEPHONE: 202-244-4700 • FAX: 202-966-4824

AMERICAN NATIONAL STANDARD

ANSI Z245.51-2013

American National Standard
for Equipment Technology and Operations
for Wastes and Recyclable Materials

Baling Equipment—
Safety Requirements for Manufacturing and
Reconstruction

Secretariat

Environmental Industry Associations

Approved May 1, 2013

American National Standards Institute, Inc.

American National Standard

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FOREWORD (This Foreword is not a part of American National Standard Z245.51-2013)

This American National Standard is applicable to the safety requirements for the design and construction of commercial baling equipment commonly used in recycling, solid waste disposal and raw materials handling. This standard revises and replaces ANSI Z245.51-2008. A companion standard, ANSI Z245.5-2013 establishes safety requirements for the installation, maintenance and operation of commercial baling equipment.

The effective date of this standard shall be 12 months after the approval date of this standard by the American National Standards Institute, Inc. For all baling equipment manufactured prior to 12 months after the approval date of this standard, please refer to the previous editions of the ANSI Z245.51 standard.

Inquiries, requests for interpretation, and suggestions for improvement of this standard should be directed to the Secretary, Accredited Standards Committee Z245, c/o Environmental Industry Associations, 4301 Connecticut Avenue, NW, Suite 300, Washington, DC 20008.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Equipment Technology and Operations for Wastes and Recyclable Materials, Z245. Committee approval of this standard does not necessarily imply that all members voted for its approval. At the time it approved this standard, the Z245 Committee had the following members:

Susan Eppes, Chairman
Gerald Zanzig, Vice-Chairman
Janice Comer Bradley, CSP, Secretary

Name of Representative

Organization Represented

Garry Mosier, CSP	Alliance Wireless Technologies
Denny Gill	Ameri-Kan
Alan Bortnick	Big Stuff, Inc.
Lawrence Mikolajczyk	City of Corpus Christi
Karen Simoni	City of Rochester
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Steve Wienkes	Environmental Equipment Solutions
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Susan Eppes	EST Solutions, Inc.
John Gilstrap	Institute of Scrap Recycling Industries
David Malter	Malter Associates, Inc.
Paul Moore	National Institute of Occupational Safety and Health
Steve David	Nu-Life Environmental, Inc.
Ed Correale	PTR Baler and Compactor Company
Mike Schwalbach	Rehrig Pacific Company
Steve Martin	Republic Services
Michael Knaub	Schaefer Systems International, Inc.
Denny Pool	SP Industries, Inc.
Shawn Mandel	Waste Connections, Inc.
Janice Comer Bradley, CSP	Waste Equipment Technology Association
Ralph Ford	Waste Industries
W.A. "Billy" Martin	Waste Management, Inc.
Thomas Stevens	Wolverine Recycling Services, Inc.
Jerald Zanzig	Zantec, Inc.
Christopher Parker	Zurich Services Corporation

The Z245.51 Standard Development Subcommittee, which drafted this standard, had the following members:

Ed Correale, Chairman
JR Robbins, Vice Chairman

Michelle Andersen
David Anderson
Lewis Barbe
Gary Brooks
Kristian Buur
Martin Cottam
Steve David
Eugen Dinu
Jane Dolezal
Nathiel Egosi, P.E.
Susan Eppes
Gary Fleming
Ralph Ford
John Gilstrap
Michael Jones
David Malter
Shawn Mandel

Steve Martin
W.A. "Billy" Martin
John Nowak
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This is a preview of "ANSI Z245.51-2013". [Click here to purchase the full version from the ANSI store.](#)

American National Standard for Equipment Technology and Operations for Wastes and Recyclable Materials—

Baling Equipment — Safety Requirements

Introduction

This standard was developed by American National Standards Institute Accredited Standards Committee Z245 Subcommittee 5 on Balers and approved by Accredited Standards Committee Z245. Certain portions of this material have been reproduced, with permission, from Underwriters Laboratories Inc. (UL) draft standard 1237, *Commercial and Industrial Waste Compactors and Balers*. The effort and support of UL and the 1237 Standards Technical Panel are gratefully acknowledged.

This standard revises the baler safety requirements found in ANSI Z245.51-2008. The complementary safety requirements for users/operators, installers and maintenance/repair individuals can be found in ANSI Z245.5-2013.

The requirements contained in this standard pertain to new balers and reconstructed balers as produced by the manufacturer. New requirements and revisions are not intended to be retroactive for balers manufactured to comply with earlier revisions of this standard. Refer to the approved edition of ANSI Z245.5 in effect at the time of manufacture for those requirements.

The requirements contained in this standard are not intended to apply to other components of end-use applications where a stationary baler is part of a designed compacting system.

A baler that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, and involves a risk of fire, electric shock, or injury to persons shall be evaluated using the appropriate additional component and end-product requirements to determine that the level of safety as originally anticipated by the intent of this standard is maintained.

A baler whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard shall not be judged to comply with this standard. Where appropriate, revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard.

Exceptions and notes contained in the standard apply to the clause or sub-clause in which they are contained or to which they reference. Exceptions pertain to normative requirements. Notes are informative and provide guidance for the evaluation of a normative requirement.

The units of distance measurement used in this standard are in the inch-pound system. When a value for measurement is followed by a value in other units in parentheses (metric), the second value is only approximate. The first value is the requirement.

1. Scope

1.1 This standard establishes requirements to minimize the risk of fire, electrical shock and injury to persons during operation and maintenance of baling equipment for use with wastes and recyclable materials by commercial businesses, apartment buildings, industrial plants, waste processing facilities, waste disposal and transfer industries, and recycling facilities.

1.2 The requirements of this standard apply to balers rated at 600 volts or less, for outdoor or indoor use, and are employed in accordance with the manufacturer's written installation, operation, and maintenance instructions and procedures.

2. Normative references

This standard is intended to be used with the following American National Standards. When these standards are referenced, the most recent revision shall apply:

ANSI/NFPA 70, *National Electrical Code*

ANSI Z245.41, *Facilities for the Processing of Commingled Recyclables – Safety Requirements*

3. Definitions

The definitions below apply to items used throughout this standard unless the context clearly requires otherwise.

3.1 access cover or door: A panel covering an opening that is designed to permit access to the interior of the baler (includes hopper access doors and loading doors).

3.2 access gate: A moveable barrier/guard that swings on hinges or moves in/on a track and is distinguished from a door by having openwork.

3.3 affected employee: An employee whose job functions place him/her in proximity to potential hazards related to work being performed by authorized employees.

3.4 arc flash: A sudden release of electrical energy through the air when a high-voltage gap exists and there is a breakdown between conductors. An arc flash gives off thermal radiation (heat) and bright, intense light that can cause burns. High-voltage arcs can also produce considerable pressure waves by rapidly heating the air and creating a blast.

3.5 authorized employee: A person who, on the basis of his/her specific experience and training, is permitted to perform certain designated duties.

3.6 automatic bale tying device: A device which installs wires or bands around a bale to maintain the bale's compressed state.

3.7 automatic start/cycling control: A control that uses an automatic actuator or sensor to initiate the operation of the baler on demand, when refuse is loaded into the loading chamber.

3.8 bale: A mass of material compressed, with or without binding, to a density or form that supports handling and transportation as a material unit.

3.9 bale chamber: The area of the baler in which the bale of material is formed during the compression cycle.