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Baling Equipment — *Safety Requirements*

ANSI Z245.5-2023

AMERICAN NATIONAL STANDARD

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

Baling Equipment—
Safety Requirements

Secretariat

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FOREWORD

(This Foreword is not a part of American National Standard Z245.5-201X

This American national Standard is applicable to the safety requirements for the design, construction, reconstruction, installation, modification, maintenance, repair, operation, and use of commercial baling equipment used in institutional, commercial and industrial locations, including and recycling facilities. This standard combines ANSI Z245.50 and .51-2013 along with bringing commonality with ANSI Z245.20 & .21-2013 combined for simplicity and effectiveness.

The effective date of all requirements 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 Z245.5 & ANSI Z245.51 standards.

Inquiries, requests for interpretation, and suggestions for improvement of this standard should be directed to the Secretary, Accredited Standards Committee Z245, c/o **National Waste & Recycling Association**, 1550 Crystal Drive, Suite 804, Arlington, VA 22202.

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:

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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.

This standard revises and combines the baler safety requirements found in ANSI Z245.51-2013 and Z245.5-2013.

The requirements contained in this standard pertain to new balers and reconstructed balers as produced by the manufacturer as well as installation, operation, reconstruction, and maintenance of existing balers. 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 and ANSI Z245.51 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 baler is part of a designed recycling system.

A baler that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, 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.

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 safety requirements to minimize the risk of fire, electrical shock and injury to persons during operation and maintenance, and the safety requirements with respect to the installation, operation, maintenance, service, repair, modification, and reconstruction (where applicable) 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.

1.3. This standard does not apply to balers intended for use in non-commercial, residential homes.

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 and 70E Arc Flash
ANSI Z245.41, Facilities for the Processing of Commingled Recyclables – Safety Requirements
ANSI Z535.1,3,4 Safety Alerting Standard Series

The following regulations contain provisions which, through reference in this text, constitute provisions of this American National Standard.

OSHA 29 CFR Part 1910, subpart D- Walking – Working Surfaces
OSHA 29 CFR Part 1910.132, General Requirements for Personal Protective Equipment
OSHA 29 CFR Part 1910.146, Permit Required Confined Spaces
OSHA 29 CFR Part 1910.147, Control of Hazardous Energy Sources (Lockout/Tagout)
OSHA 29 CFR Part 1910, Subpart S, Electrical

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 open work.

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. **auto cycle enabling circuit / arming circuit definition**: The circuit or control logic that when enabled allows the machine to cycle automatically upon input from an auto-cycle signaling device. When not enabled the machine will not auto-cycle regardless of the auto-cycle signaling