American National Standard

ANSI Z245.21 - 2004

ENVIRONMENTAL INDUSTRY
ASSOCIATIONS

for Equipment Technology and Operations for Wastes and Recyclable Materials ---

Stationary Compactors – Safety Requirements

WASTE EQUIPMENT TECHNOLOGY ASSOCIATION
A PART OF THE
ENVIRONMENTAL INDUSTRY ASSOCIATIONS

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

Stationary Compactors — Safety Requirements

Secretariat
Environmental Industry Associations

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American National Standards Institute, Inc.

American National Standard

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FOREWORD (This foreword is not part of American National Standard Z245.21 -2004)

This American National Standard is applicable to the safety requirements for the design and construction of commercial stationary compactors used in apartment, institutional, commercial and industrial locations, including transfer stations and recycling facilities. A companion standard, ANSI Z245.2 –2004 establishes safety requirements for the installation, maintenance and operation of commercial stationary compacting equipment. Both these standards taken together revise and replace ANSI Z245.2-1997. This American National Standard does not apply to compactors commonly referred to as domestic or household compactor appliances. Stationary compactors also have been addressed previously in ANSI Z245.2-1992 and ANSI Z245.1 (1978 and 1984 editions), *Mobile Refuse Collection and Compaction Equipment, Safety Requirements*. For mobile collecting and compacting equipment, refer to ANSI Z245.1.

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 stationary compacting equipment manufactured prior to 12 months after the approval date of this standard, please refer to the previous editions of the ANSI Z245.2 standard.

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

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

Gary Satterfield, Chairman
C. Phillip Headley, Secretary

The members of Accredited Standards Committee Z245, and the organizations represented, who participated in the development of this standard were:

Organization Represented	*Name of Representative*
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Waste Industries	Ralph Ford
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Distributor Committee	Tony Odhner
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Accredited Standards Committee Z245 Subcommittee 2 on Compactor Safety, which provided the draft of this standard to Z245 Committee, had the following members:

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

Stationary Compactors — Safety Requirements

0 Introduction

This standard was developed by American National Standards Institute Accredited Standards Committee Z245 Subcommittee 2 on Stationary Compactors 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 stationary compactor safety requirements found in ANSI Z245.2-1997. The complementary safety requirements for users/operators, installers and maintenance/repair individuals can be found in ANSI Z245.2 – 2004.

The requirements contained in this standard pertain to new stationary compactors as produced by the manufacturer. New requirements and revisions are not intended to be retroactive for stationary compactors manufactured to comply with earlier revisions of this standard. Refer to the approved edition of ANSI Z245.2 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 compactor is part of a designed compacting system.

A stationary compactor 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 stationary compactor 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, the second value is only approximate. The first value is the requirement.

1 Scope

1.1 This standard revises requirements to minimize the risk of fire, electrical shock and injury to persons during operation and maintenance of stationary compacting 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 stationary compactors rated at 600 volts or less, for outdoor or indoor use, and are employed in accordance with the manufacturer's installation, operation, and maintenance instructions and procedures.

1.3 This standard does not apply to compactors intended for use in private homes.

1.4 This standard does not apply to mobile landfill compactors and compactor-type equipment that is operational when mounted on trucks or other vehicles.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI/NFPA 70-2002, *National Electrical Code - Edition 2002*
UL 20-1996, *Safety Standard for General-Use Snap Switches*
UL 50-1995, *Cabinets and Boxes*
UL 429-1999, *Electrically Operated Valves*
UL 746C-1995*, Polymeric Materials - Use in Electrical Equipment Evaluations*
UL 842-1999, *Valves for Flammable Liquids*
UL 969-1997, *Marking and Labeling Systems*
UL 1004-1994, *Electric Motors*
UL 1030-1994, *Sheathed Heating Elements*
UL 2111-1997, *Safety Standard for Overheating Protection for Motors*

3 Definitions

For the purposes of this American National Standard, the definitions below apply to terms used throughout this standard, unless the context clearly indicates otherwise.

3.1 access cover or door: A panel covering an opening that is designed to permit access to the interior of the stationary compactor.

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 them in proximity to potential hazards related to work being performed by authorized employees.

3.4 authorized employee: A person who, on the basis of their specific experience and training, is permitted to perform certain designated duties.

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