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ANSI/ASSP Z9.6-2018

Exhaust Systems for Grinding, Polishing and Buffing







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ANSI/ASSP Z9.6 – 2018

American National Standard

Exhaust Systems for Grinding, Polishing and Buffing

Secretariat

American Society of Safety Professionals 520 N. Northwest Highway Park Ridge, Illinois 60068

Approved December 3, 2018

American National Standards Institute

American National Standard

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Foreword (This Foreword is not a part of American National Standard Z9.6 – 2018.)

A standard for ventilation of grinding, polishing and buffing equipment was originally developed by the Industrial Hygiene Codes Committee of the American Foundrymen's Association (now known as the American Foundrymen's Society, or AFS) and was approved by the Board of Directors of that organization on December 4, 1936. Realizing that grinding, polishing and buffing equipment is used in many industries, and wishing to make technical material used by the foundry industry more widely available, the American Foundrymen's Association submitted this standard to the American Standards Association (now ANSI) for approval as an American National Standard. ASA referred the standard to the Z9 Committee on Exhaust Systems, a canvass of interested parties was conducted by letter ballot, and the standard was issued as Z43.1-1941 on August 14, 1941.

The Dust Control Committee of the American Foundrymen's Society revised and updated the standard, submitted the revision to the American Standards Association, and it was reissued under the guidance of the Z9 committee as Z43.1-1966. ANSI withdrew the standard in 1988 when no further work was done on it. The Z9 Committee, however, believed it was important to maintain this consensus information and chartered a Z9.6 subcommittee in 1992 to rewrite Z43.1 as ANSI Z9.6. This new standard provided updated information on ventilation for grinding, polishing and buffing operations that conforms to current accepted practices.

New technology and research continues to change this field and it is hoped that future versions of the standard will reflect this growth in knowledge. Suggestions for improvement are welcome. They should be sent to the American Society of Safety Professionals, 520 N. Northwest Highway, Park Ridge, Illinois 60068.

How to Read This Standard

The standard is presented in two-column format. The left column presents the requirements of the standard; the right column provides clarifications, exceptions and explanations of the requirements plus "how to comply" information.

Figures 1-15 are incorporated as part of the standard.

Standard requirements should be considered minimum criteria and can be adapted to the needs of the user establishment. Demonstrably equal or better approaches are acceptable. When deviating from the standard, documentation should be provided.

The standard is auditable by those trained in ventilation. An audit form is provided in the appendix.

Suggestions for improvement of this standard are welcome. They should be sent to the American Society of Safety Professionals, 520 N. Northwest Highway, Park Ridge, Illinois 60068.

This standard was developed and approved for submittal to ANSI by the Z9 Accredited Standards Committee on Health and Safety Standards for Ventilation Systems. Consensus was reached through a process involving the entire Z9 Committee in a series of reviews and in the final vote of approval. 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 Z9 Committee had the following members:

Theodore Knutson, MS, P.E., Chair Geoffrey Raifsnider, P.E., Vice Chair Ovidiu Munteanu, Secretary Timothy R. Fisher, CSP, CHMM, ARM, CPEA, Assistant Secretary Jennie Dalesandro, Administrative Technical Support

Organization Represented

American Foundry Society

American Industrial Hygiene Association American Society of Safety Professionals

ASHRAE AstraZeneca

Burton, D. Jeff Covestro LLC Figueroa, Crescente Global Finishing Solutions

Job Safety Associates, LLC Knutson Ventilation Inc.

National Association for Surface Finishing

National Institute for Occupational Safety & Health

National Institutes of Health

NorthWest Occupational Health & Safety

Price, John

Robson Forensic, Inc. Rutgers University

Saint-Gobain Abrasives Inc.

Sheehy, John

Sherwin-Williams Company

Thermo Fisher Scientific

Independent Experts & Observers:

El Group, Inc.

U.S. Department of Labor - OSHA

Subgroup Z9.6 had the following members:

Theodore Knutson, MS, P.E. (Chair) Gerhard Knutson, Ph.D., CIH (Vice Chair) D. Jeff Burton, P.E.

Brian Haynack

Geoffrey Raifsnider, P.E.

Name of Representative

Robert Scholz

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Ronald Schaible, CSP, CIH

Alejandro Ruiz, CIH, CSP, CHMM, CET, SMS

Holly Colt

John Sheehy, Ph.D. Brian Haynack Jay Dick Daniel Kallin

Lindsay Cook James Nelson, P.E. **Contents**

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AMERICAN NATIONAL STANDARD Z9.6 EXHAUST SYSTEMS FOR GRINDING, POLISHING AND BUFFING

STANDARD REQUIREMENTS

EXPLANATORY INFORMATION

(Not part of American National Standard Z9.6)

1. SCOPE AND APPLICATION

- **1.1 Scope.** The requirements and emission and exposure control principles described in this standard represent the minimum criteria intended 1) to protect the health of personnel engaged in and working in the vicinity of grinding, polishing and buffing operations; and 2) to control contaminants generated by those operations.
- **1.2 Application.** The standard applies to processes, equipment and operations that use power-driven machinery to grind, polish or buff a product without the use of a liquid coolant. Where liquid coolants are used, the cooling fluid may be emitted as a mist, aerosol or vapor and additional provisions will be required by the user to control exposures, pooling of liquids, draining of ducts, use of mist eliminators, and so forth, that are not covered in the standard.
- **1.3** Where federal, state or local regulations or codes are more stringent, those regulations and codes shall have control.

2. REFERENCED STANDARDS AND PUBLICATIONS

- **2.1 General.** The regulations, codes, standards and guidelines cited in Sections 2.2, 2.3 and 2.4 contain provisions that through reference constitute provisions of this American National Standard. The related documents cited in 2.5 contain additional information, but are not essential for complying with the requirements of this standard.
- **E2.1** At the time of publication, the editions indicated were current. All standards and guidelines are subject to revision, and users of this American National Standard are encouraged to consult the most recent editions of the standards and guidelines listed below.