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American Standard Safety Code for

Head, Eye, and Respiratory Protection

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Approved November 27, 1959
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Foreword

(This Foreword is not a part of American Standard Safety Code for Head, Eye, and Respiratory Protection, Z2.1-1959.)

The first edition of this code was completed in the fall of 1920 and issued early in 1921. It was prepared with the cooperation of an advisory committee of 19 men who had been selected because of their interest in and knowledge of the subject and as being typical representatives of the interests most closely concerned. The code was developed from a set of safety standards originally prepared in cooperation between the War and Navy Departments and the National Bureau of Standards.

The second edition was issued in 1922, after revision by a sectional committee organized under the procedures of the American Standards Association, and was published as National Bureau of Standards Handbook H2.

The scope of the Z2 project was enlarged to include respiratory protection because of the many processes where simultaneous protection of lungs and eyes was needed, and a revision was published in 1938 as National Bureau of Standards Handbook H24.

In 1946 the sectional committee was reconvened and started work on a revision. A subcommittee on eye protection was organized under the direct supervision of the National Bureau of Standards; a subcommittee on respiratory protection was organized under the supervision of the U.S. Bureau of Mines; and a subcomittee on head protection was organized under supervision of the Department of the Navy. All parts of the standard had to be reviewed and brought up to date in order to include new materials and devices which had been developed since 1938, particularly the use of plastics for eye protection.

Suggestions for improvement gained in the use of this standard will be welcomed. They should be sent to the American Standards Association, Incorporated, 70 East Forty-fifth Street, New York 17, N. Y.

The committee that developed this standard is as follows:

DR LEONARD GREENBURG, *Chairman*

R. L. LLOYD, *Secretary*

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	J. EARL DUNCAN, Pittsburgh Plate Glass Company *(Alt)*
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American Standard Safety Code for

Head, Eye, and Respiratory Protection

1. Purpose and Scope

1.1 Purpose. The purpose of this standard is to provide reasonable and adequate means, ways, and methods for the proper selection and safe use of head, face, neck, eye, and respiratory protective equipment.

1.2 Scope. This standard shall apply to all operations or processes, excluding those relating to (1) communicable air-borne diseases, or (2) x-rays, gamma rays, and high-energy particulate radiations such as alpha, beta, or neutron rays.

2. Exceptions

Variations from the requirements of this standard may be granted by the administrative agency only when it is demonstrated to the satisfaction of the administrative agency that equivalent protection is afforded.

3. Definitions

3.1 General Information

3.1.1 Where the word "approved" is used with qualification, it refers to approval by the administrative agency having jurisdiction over the specific requirement.

3.1.2 In this standard, the use of the word "shall" indicates a mandatory requirement. The word "should" indicates a recommendation.

3.2 Specific Definitions. As used in this standard, the following words shall have the indicated definitions, and all other words shall have meaning according to their common usage.

Abrasive-Blasting Respirator: See Respirator.

Aerosol: A suspension of fine, solid, or liquid particles in air as dust, fume, mist, smoke, or fog.

Air-Line Respirator: See Respirator.

Air-Regulating Valve: An adjustable valve between the air-supply line and the breathing tube of an air-line respirator or an abrasive-blasting respirator whereby the flow of air to the facepiece, helmet, or hood may be regulated.

Air-Supply Device: A hand- or motor-operated blower for the hose mask or a source of respirable compressed air for the air-line respirator and for the abrasive-blasting respirator.

Air-Supply Line: A hose to conduct respirable air from the air-supply device to that portion of a supplied-air respirator carried on the wearer's person.

Auxiliary Magnifier or Enlarger: A single lens or a pair of lenses joined together in a suitable manner to be inserted into the window in a welding helmet or hand shield to magnify or enlarge the area of the point of operation.

Breathing Tube: A flexible tube through which air or oxygen flows to the facepiece of a respirator.

Bridge Size: The distance between lenses on the nose side of each eye, expressed in millimeters.

Canister: A detachable container filled with granular materials that remove gases or vapors from the air that is drawn through the unit; it may also contain mechanical filters to remove dust, mist, and smoke particles.

Cartridge: A small canister.

Cartridge-Type Respirator: See Respirator.

Contaminant: A harmful material that is foreign to the normal atmosphere.

Cover Plate: A removable pane of colorless glass, plastic-coated glass, or plastic that covers the filter plate and protects it from damage.

Crown Strap(s): As applied to protective hats and caps, it is that part of the suspension that supports the shell in proper position on the wearer's head and acts as a shock absorber when the shell is subjected to impact; as applied to helmets and face shields, it is that part of the suspension that supports the device in proper position in front of the wearer's face.

Demand Respirator: See Respirator.

Detachable Coupling: A device by means of which the wearer of an air-line respirator may quickly detach the air-supply line from that part of the respirator worn on the person.

Disinfection: The act or process of destroying organisms that cause disease.

Dispersoid: A colloidal or finely divided substance.

Dust: Finely divided solid particles generated by processing (including handling, crushing, grinding, or pulverizing) materials such as rock, ore, metal, coal, wood, and grain.