

*ANSI Z136.3 - 2005*

# American National Standard

*American National Standard  
for Safe Use of Lasers  
in Health Care Facilities*

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**ANSI®**  
**Z136.3 – 2005**  
Revision of  
ANSI Z136.3-1996

**American National Standard  
for Safe Use of Lasers  
in Health Care Facilities**

Secretariat  
**The Laser Institute of America**

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**American National Standards Institute, Inc.**

**American  
National  
Standard**

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## Foreword

(This Introduction is not a normative part of ANSI Z136.3-2005, American National Standard for Safe Use of Lasers in Health Care Facilities.)

In 1968, the American National Standards Institute (ANSI) approved the initiation of the Safe Use of Lasers Standards Project under the sponsorship of the Telephone Group.

Prior to 1985, Z136 standards were developed by ANSI Committee Z136 and submitted for approval and issuance as ANSI Z136 standards. Since 1985, Z136 standards are developed by ANSI Accredited Standards Committee (ASC) Z136. A copy of the procedures for development of these standards can be obtained from the secretariat, the Laser Institute of America, 13501 Ingenuity Drive., Suite 128, Orlando, FL 32826 or viewed at [www.z136.org](http://www.z136.org).

The present scope of ASC Z136 covers protection against hazards associated with the use of lasers and optically radiating diodes.

ASC Z136 is responsible for the development and maintenance of this Standard. In addition to the consensus body, ASC Z136 is composed of standards subcommittees (SSC) and technical subcommittees (TSC) involved in Z136 standards development. At the time of this printing, the following standards and technical subcommittees were active:

- SSC-1 Safe Use of Lasers (parent document)
- SSC-2 Safe Use of Lasers and LEDs in Telecommunications Applications
- SSC-3 Safe Use of Lasers in Health Care Facilities
- SSC-4 Measurements and Instrumentation
- SSC-5 Safe Use of Lasers in Educational Institutions
- SSC-6 Safe Use of Lasers Outdoors
- SSC-7 Eyewear and Protective Barriers

- TSC-1 Biological Effects and Medical Surveillance
- TSC-2 Hazard Evaluation and Classification
- TSC-4 Control Measures and Training
- TSC-5 Non-Beam Hazards
- TSC-6 Terminology
- TSC-7 Analysis and Applications
- TSC-8 Editorial

The five standards currently issued are:

ANSI Z136.1-2000, American National Standard for Safe Use of Lasers (replaces ANSI Z136.1-1993)

ANSI Z136.2-1997, American National Standard for Safe Use of Optical Fiber Communication Systems Utilizing Laser Diode and LED Sources (replaces ANSI Z136.2-1989)

ANSI Z136.3-1996, American National Standard for Safe Use of Lasers in Health Care Facilities (replaces ANSI Z136.3-1988)

ANSI Z136.5-2000, American National Standard for Safe Use of Lasers in Educational Institutions

ANSI Z136.6-2000, American National Standard for Safe Use of Lasers Outdoors

This American National Standard is intended to assure the safe use of lasers in health care facilities, and has been published as part of the American National Standard Z136 series. The base document of the series is the American National Standard for Safe Use of Lasers, ANSI Z136.1. The procedures and methodologies described in this standard are based on requirements previously established in ANSI Z136.1 and are intended to give more specific processes for accomplishing laser safety in health care facilities. It should be recognized that the scope of the ANSI Z136.3 includes all circumstances when humans are purposely exposed to lasers, and has been expanded to incorporate laser use in non-hospital facilities such as outpatient facilities, individual offices and non-medical locations. In general, this standard may be used independently of ANSI Z136.1; however, instances where additional guidance contained in ANSI Z136.1 is required are noted in the text of this document.

It is expected that this standard will be periodically revised as new information and experience in the use of lasers are gained. Future revisions may have modified content and use of the most current document is highly recommended.

While there is considerable compatibility among existing laser safety standards, some requirements differ among state, federal, and international standards. These differences may have an impact on the particulars of the applicable safety measurements.

Suggestions for improvements of the standard are welcome. They should be sent to the secretariat, Laser Institute of America, 13501 Ingenuity Drive, Suite 128, Orlando, FL 32826.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee Z136 on the Safe Use of Lasers. Committee approval of the standard does not necessarily imply that all members voted for its approval.

- Ron Petersen, Committee Chairman
- Jerry Dennis, Committee Vice-Chairman
- Sheldon Zimmerman, Committee Secretary

**Notice**

(This Notice is not a normative part of ANSI Z136.3-2005, American National Standard for Safe Use of Lasers in Health Care Facilities.)

Z136 standards and recommended practices are developed through a consensus standards development process approved by the American National Standards Institute. The process brings together volunteers representing varied viewpoints and interests to achieve consensus on laser safety related issues. As secretariat to ASC Z136, the Laser Institute of America (LIA) administers the process and provides financial and clerical support to the committee.

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