

American National Standard

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



This is a preview. Click here to purchase the full publication.

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

Approved January 6, 2005

American National Standards Institute, Inc.

This is a preview. Click here to purchase the full publication.

**American
National
Standard**

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard is intended as a guide to aid the manufacturer, the consumer and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether he has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes or procedures not conforming to the standard. American National Standards are subject to periodic review and users are cautioned to obtain the latest editions.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Published by

**Laser Institute of America
13501 Ingenuity Drive, Suite 128
Orlando, FL 32826**

ISBN: 0-912035-69-2

Copyright © 2005 by Laser Institute of America
All rights reserved.

No part of this publication may be reproduced in any form,
in an electronic retrieval system or otherwise, without the
prior written permission of the publisher.

Printed in the United States of America

This is a preview. Click here to purchase the full publication.

Contents

SECTION	PAGE
1. General.....	1
1.1 Scope	1
1.2 Application: Hazard Classification Scheme	1
1.3 Laser Safety Officer (LSO).....	2
1.4 Non-Hospital Environment.....	3
1.5 Diagnostic Health Care Laser Systems.....	4
2. Definitions	4
3. Hazard Evaluation and Classification	8
3.1 General.....	8
3.2 Laser Considerations	8
3.3 Laser and Laser Systems Hazard Classification	8
3.4 Laser Use Environment: Operating or Treatment Rooms.....	8
3.5 Personnel Who May be Exposed	9
4. Control Measures.....	9
4.1 General Considerations.....	9
4.2 Administrative Controls.....	9
4.3 Equipment Controls	10
4.4 Laser Use Environment (Class 3B and Class 4)	11
4.5 Maintenance, and Service Procedural Controls	13
4.6 Protective Equipment.....	13
4.7 Warning Signs and Labels	15
4.8 Exhibits, Demonstrations and Clinical Training.....	16
5. Laser Safety Programs	16
5.1 Administration	16
5.2 Training	16
6. Medical Surveillance of Health Care Personnel (HCP).....	17
6.1 General.....	17
6.2 Personnel Categories	17
6.3 Medical Surveillance Documentation and Examinations	17
6.4 Frequency of Medical Surveillance Examinations	18
6.5 Records and Record Retention.....	18
7. Non-Beam Hazards.....	18
7.1 General.....	18
7.2 Electric Controls and Power Supplies.....	18
7.3 Infection Control.....	18
7.4 Laser Generated Airborne Contaminants (LGAC)	18
7.5 Collateral and Plasma Radiation.....	19
7.6 Fire and Explosion Hazards.....	19
7.7 Electromagnetic Interference and Susceptibility	20
7.8 Endoscopic Delivery Systems	21
7.9 Waste Disposal	21
7.10 Laser Gases and Dyes	21
7.11 Room Designs.....	21
8. Criteria for Exposure of the Eye and Skin	21
9. Measurements	21
9.1 Beam Shape and Alignment	21
9.2 Other Beam Considerations	21
10. Revision of American National Standards Referred to in this Document	22
Table 1	23
Control Measures for the HCLS	23