American National Standard
Criteria for
Accepted Practices in
Safety, Health, and
Environmental Training

Secretariat

American Society of Safety Engineers
1800 East Oakton Street
Des Plaines, Illinois 60018-2187

Approved July 2, 2001

ANSI Board of Standards Review
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 they have 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.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no persons shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of publication. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

Published by

American Society of Safety Engineers
1800 East Oakton Street, Des Plaines, Illinois 60018-2187

Copyright © 2001 by American Society of Safety Engineers
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
Foreword

The charter of the American National Standards Committee Z490 on Criteria for Accepted Practices in Safety, Health and Environmental Training was accredited by the American National Standards Institute on September 19, 1997. This Standard grew out of the recognized need for improvement in safety, health, and environmental training. Quality training is required to ensure that workers and safety, health, and environmental professionals have the knowledge, skills, and abilities necessary to protect themselves and others in the workplace.

Safety, health, and environmental training is an important element of an effective overall safety, health, and environmental program.

Historically, safety, health, and environmental training has been specifically addressed by only a few regulations with limited scope, such as asbestos, hazard communication, and storm water management. The regulations usually specify the technical topics to be covered in a training course, but do not stipulate how to adequately design, develop, deliver, and evaluate training.

This Standard covers all facets of training, including training development, delivery, evaluation, and management of training and training programs. Thus, the criteria were developed by combining accepted practices in the training industry with those in the safety, health, and environmental industries. The Standard is intended to apply to a broad range of training and training programs.

Industry employers may use this Standard to assess the services of external training providers or to audit or improve their own corporate training programs. Training providers may use the Standard to assess and improve their training services. This Standard may also be used as a basis for development and management of training and training programs, with the annexes and references providing additional information and detail.

Governmental regulations specify mandatory requirements for various safety, health, and environmental training. Likewise, the training program may be embedded in a larger safety, human resources, or other organizational structure. As a broad-based voluntary consensus standard, this document complements the regulations and organizational policies. However, compliance with this Standard does not assure compliance with governmental regulations or organizational policies, or vice versa.

The Z490 Committee solicits public input that may suggest revisions to the Standard. Such input should be sent to the Secretariat, American Society of Safety Engineers, 1800 East Oakton Street, Des Plaines, IL 60018-2187.

This Standard was developed and approved for submittal to ANSI by the American National Standards Committee on Criteria for Accepted Practices in Safety, Health, and Environmental Training, Z490. Committee approval of the Standard does not imply that all members voted for its approval. At the time of its approval, the Z490 Standards Committee consisted of the following members:

Steven F. Kane, Chairman
Frank Perry, Vice-Chairman
Thomas F. Bresnahan, Secretary
Timothy R. Fisher, Assistant Secretary

<table>
<thead>
<tr>
<th>Organization Represented</th>
<th>Name of Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Federation of State, County and Municipal Employees,</td>
<td>William G. Marquardt</td>
</tr>
<tr>
<td>AFL-CIO</td>
<td></td>
</tr>
<tr>
<td>Alliance of American Insurers</td>
<td>Amy Mock (Alt)</td>
</tr>
<tr>
<td>American Association of Occupational Health Nurses, Inc.</td>
<td>JoBeth Wigington</td>
</tr>
<tr>
<td></td>
<td>Wendie Robbins</td>
</tr>
<tr>
<td></td>
<td>Bonnie Rogers (Alt)</td>
</tr>
</tbody>
</table>
American College of Occupational & Environmental Medicine
American Industrial Hygiene Association
American Insurance Services Group
American Society of Safety Engineers
Board of Certified Safety Professionals
Boeing Commercial Airplanes
Construction Safety Council
Edison Electric Institute
Federal Highway Administration
FIRECON
International Association for Continuing Education and Training (IACET)
International Chemical Workers Union Council (ICWUC)
Laborers - AGC Education and Training Fund
Lion Technology Inc.
National Environmental Training Association
National Fire Protection Association
National Institute of Environmental Health Sciences
National Institute of Occupational Safety & Health
National Safety Council
National Safety Management Society
Partnership for Environmental Technology Education
Pepper Construction Co.
Texas A&M University System
Tulane University
Tennessee Valley Authority (TVA)
United Auto Workers
United Brotherhood of Carpenters Health & Safety Fund of North America
United Safety Associates
University of Illinois at Chicago
U.S. Army Corps of Engineers
U.S. Army Safety Center
U.S. Coast Guard
U.S. Department of Energy
U.S. Department of Labor-Mine Safety and Health Administration
U.S. Department of Labor-OSHA Training Institute
U.S. Postal Service
Video Information System Training Associates, Inc.
## Contents

<table>
<thead>
<tr>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation of Standard</td>
<td>6</td>
</tr>
<tr>
<td>Standard Requirements</td>
<td></td>
</tr>
<tr>
<td>1. Scope, Purpose, and Application</td>
<td>7</td>
</tr>
<tr>
<td>2. Definitions</td>
<td>7</td>
</tr>
<tr>
<td>3. Training Program Administration and Management</td>
<td>8</td>
</tr>
<tr>
<td>4. Training Development</td>
<td>10</td>
</tr>
<tr>
<td>5. Training Delivery</td>
<td>13</td>
</tr>
<tr>
<td>6. Training Evaluation</td>
<td>15</td>
</tr>
<tr>
<td>7. Documentation and Record Keeping</td>
<td>17</td>
</tr>
<tr>
<td>Preface to Use of Annexes</td>
<td>20</td>
</tr>
<tr>
<td>Annex A: References</td>
<td>20</td>
</tr>
<tr>
<td>Annex B: Training Course Development Guidelines</td>
<td>21</td>
</tr>
<tr>
<td>Annex C: Training Delivery</td>
<td>27</td>
</tr>
<tr>
<td>Day of Training Checklist</td>
<td>31</td>
</tr>
</tbody>
</table>
Explanation of Standard

American National Standard Z490.1-2001 uses a two-column format to provide both specific requirements and supporting information. The left column, designated “Standard Requirements,” is confined solely to these requirements and is printed in bold type. The right column, designated “Explanatory Information,” contains only information that is intended to clarify the Standard. This column is not a part of the Standard.
1. Scope, Purpose, and Application

1.1 Scope - This Standard establishes criteria for safety, health, and environmental training programs, including development, delivery, evaluation, and program management.

1.2 Purpose - The purpose of this Standard is to provide accepted practices for safety, health, and environmental training.

1.3 Application - This Standard is recommended for application by training providers of safety, health, and environmental training.

1.3.1 If any of the provisions of this Standard are deemed to not be applicable, the other requirements or recommendations of the Standard shall still apply.

1.3.2 This Standard applies to all safety, health, or environmental training, whether separate or a portion of other training.

2. Definitions

2.1 certificate: A written document attesting to the successful completion of an established training program by an individual trainee.

2.2 competent person: A person prepared by education, training, or experience to develop and implement various elements of a training program.

2.3 credit: A quantitative measure of units of training completed.

2.4 learning objectives: Written statements of the desired knowledge, skill, or ability to be demonstrated by trainees.

2.5 may: Denotes a permissive statement.

2.6 shall: Indicates a mandatory requirement.