

MACHINE SAFEGUARDING SEMINARS

QUOTES FROM PAST PARTICIPANTS

- I thought that we were close to complete compliance, but after attending this seminar, I realize we have a lot of work to do to reach total compliance!
- Outstanding presentation—very professional.
- It was a very good seminar. I found that there were a lot of things that needed guarding that I wasn't even aware of.
- I thoroughly enjoyed the seminar—it was very well organized and conducted.
- Great class—the best I have ever attended!
- The course is a “must” for anyone involved in machinery, guarding or operational setup.
- The instructor was very knowledgeable and interesting to listen to. Thanks for all the great information.



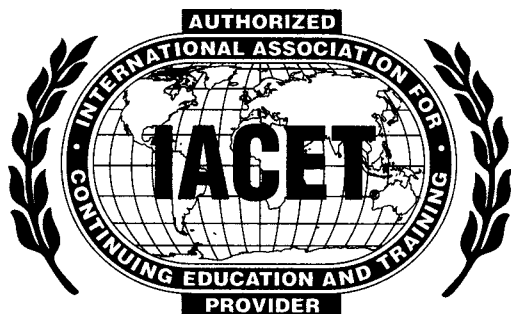
- Excellent workshop with very nice take-home materials.
- I liked the hands-on demonstrations on the machines in the training center.
- Excellent course. I found out how much I didn't know!

ROCKFORD SYSTEMS' QUALIFICATIONS

For numerous years, we have been educating individuals throughout the world on machine safeguarding. Every year, hundreds of people attend these seminars. Participants come from a variety of industries including manufacturing, distribution, insurance, government, aerospace, and consulting. They include safety directors, plant managers, maintenance and engineering personnel, machine setup personnel, safety specialists, loss-control engineers for insurance companies, safety consultants, as well as federal and state compliance and training personnel. Seminar instructors are very knowledgeable and have many years of experience in the machine tool industry.

IMMEDIATE BENEFITS

- Understand how to safeguard your machines to meet safety standards and best safety practices
- Determine the best types of safeguards for your applications, production, and maintenance requirements
- Learn what OSHA looks for during inspections
- Be able to perform a machine risk assessment and hazard analysis
- Gain insight on how to incorporate ergonomics into your safeguarding methods
- Obtain safeguarding resources which can be used after the seminar
- Earn 2.0 CEUs (continuing education units)



CONTINUING EDUCATION UNITS

The machine safeguarding seminar of Rockford Systems has been reviewed and approved by the International Association for Continuing Education and Training (IACET). Attendees who successfully complete this program will receive 2.0 CEUs (continuing education units).

INTRODUCTION

According to safety standards, when a machine creates a hazard to operators and other employees in the machine area, it must be safeguarded. We offer this machine safeguarding seminar to teach people in positions of responsibility how to safely control the machine, safeguard the point of operation of a machine, and safeguard other machine hazards to meet these requirements. Identifying the hazard and risk assessment are also discussed.

The machine safeguarding seminar is a 2½-day seminar that explains how to interpret the performance language of both OSHA (Occupational Safety and Health Administration) and ANSI (American National Standards Institute) safety standards concerning mechanical and hydraulic power presses and press brakes. The ANSI B11 standards are used as a guideline to explain safeguarding cutting and turning machines. Specific machine safeguarding situations are also discussed.

The seminar combines classroom discussion with demonstrations of machines under power. Hands-on experience with these machines and visual aids, including PowerPoint slides and videos, are also used. These teaching methods enable the participants to interpret the OSHA and ANSI standards as they relate to their specific machine applications, production, and maintenance requirements.

TRAINING CENTER

Our training center contains a number of metal-fabricating and cutting and turning machines. These machines are under power for demonstration purposes. Most of these machines are equipped with more than one type of safeguard so the students can see how different guards and devices can be applied and used. They also provide hands-on experience for each student.

TRAINING INSTRUCTORS

Our instructors are well qualified, having many years of exposure to the machine-tool industry. Their experience comes from working in the field with plant engineers, safety directors, and plant managers. Instructors are also involved with the writing and reviewing of various ANSI B11-series safety standards for machine tools.

WHO SHOULD ATTEND?

- | | | | |
|-------------------------|---------------------------|-----------------------|------------------------|
| • Maintenance Personnel | • Loss-Control Engineers | • Die Setup Personnel | • Design Engineers |
| • Safety Specialists | • Safety Directors | • Setup/Operators | • Safety Engineers |
| • Floor Supervisors | • Manufacturing Engineers | • Plant Managers | • Production Personnel |

SEMINAR MATERIALS

Each person attending the seminar receives a binder with machine safeguarding information. Included in the binder are the following:

- OSHA 29 CFR 1910.211, 1910.212, 1910.217, and 1910.219
- OSHA 29 CFR 1910.147, *Lockout/Tagout*
- ANSI B11.1, *Mechanical Power Presses*
- ANSI B11.3, *Power Press Brakes*
- ANSI B11.19, *Performance Criteria for Safeguarding*
- Charts and graphs for future reference
- Safeguarding product catalogs
- and much more

REGISTRATION INFORMATION

Please consult the factory or our Web site for the registration fee. This fee includes the seminar presentation and demonstrations, a seminar binder (discussed previously), guard-opening scales, safety distance guide, refreshment breaks, lunch, and a certificate of completion. The registration fee does not include other meals, lodging, or transportation. To enroll, use the registration form on page 6, or register online at www.rockfordsystems.com.

SEMINAR SCHEDULE

The machine safeguarding seminar is usually held on the third Tuesday, Wednesday, and Thursday of each month. (Thursday's session is half-day.) All seminar dates and times are subject to change. Please call the seminar registrar to confirm seminar dates before making travel arrangements.

CONFIRMATION

Each student will be mailed a package of detailed information. A list of hotels is provided for students to make their own hotel reservations.

LOCATION

The seminar is held at our Rockford, Illinois, plant, which is located approximately 70 miles northwest of Chicago's O'Hare Airport.

ON-SITE SEMINARS

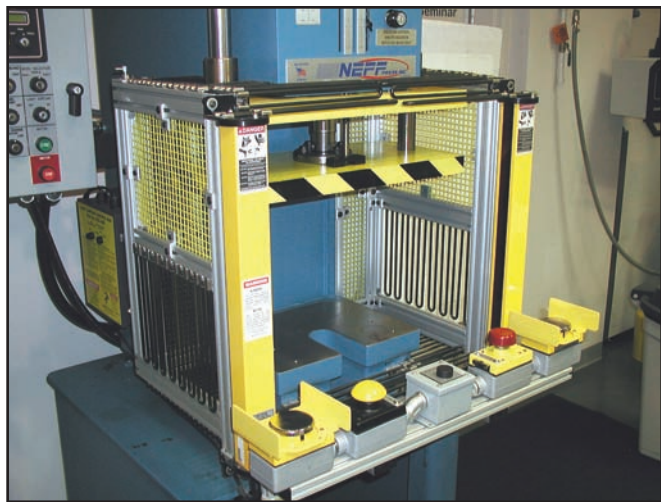
Machine safeguarding seminars can be presented at your company and tailored to the types of machines in your plant. Please contact our training department for details.

MACHINE SAFEGUARDING SEMINARS

Through the use of PowerPoint presentations, students learn how to interpret the performance language of both OSHA and ANSI safety standards. This allows the students to learn how to deal with machine safeguarding situations as they relate to their specific machine applications and production requirements.

Visual aids are used to illustrate the interpretation of safety standards. Over the years, we have compiled a variety of slides and computer images from manufacturing plants. These show workpieces being stamped, bent, machined, etc., with various safeguarding equipment in place.

Videos showing end users of machine tools in production situations are also included. They offer unique and innovative ideas from which students can draw useful information. These training aids illustrate a broad spectrum of machine safeguarding applications.



Hydraulic Press With a Light Curtain and Two-Hand Control as the Point-of-Operation Safeguard—Also has a Hydraulic Control With Control Reliability

OUTLINE OF SAFEGUARDING SEMINAR

Day 1

Welcome and Objectives of Seminar
ANSI and OSHA
Risk Assessment/Risk Reduction
OSHA 29 CFR 1910.211,
Definitions
OSHA 29 CFR 1910.212,
General Requirements for All Machines and Auxiliary Equipment
Mechanical Power Presses
(OSHA 29 CFR 1910.217 and ANSI B11.1)
Full-Revolution-Clutch Requirements
Part-Revolution-Clutch Requirements
Control Reliability and Brake Monitoring
Electrical Component Requirements (NFPA 79)
Hand-Feeding Tools
Point-of-Operation Safeguarding Requirements

Day 2

Point-of-Operation Safeguarding
 Two-Hand Trip
 Two-Hand Control
 Ergonomics for Two-Hand Trip and Two-Hand Control
 Presence-Sensing Devices
 Pullback (Pullout) Device
 Restraint (Holdout) Device
 A and B Gate (Movable Barrier) Devices
 Guards
Requirements for Design, Construction, Setting, and Feeding of Dies
Inspection and Maintenance Records
Instruction to Operators
Report of Injuries
Mechanical Power-Transmission Apparatus
ANSI B11.2, Hydraulic Power Presses
ANSI B11.3, Power Press Brakes
ANSI B11.4, Shears
ANSI B11.5, Iron Workers

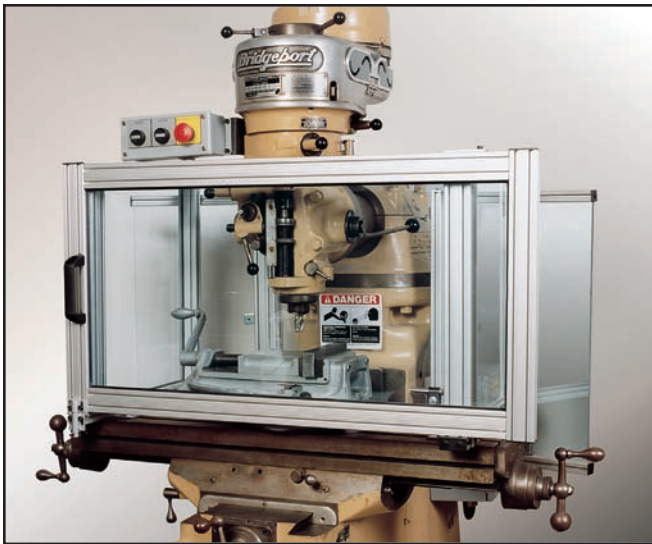
(see next page for day 3)



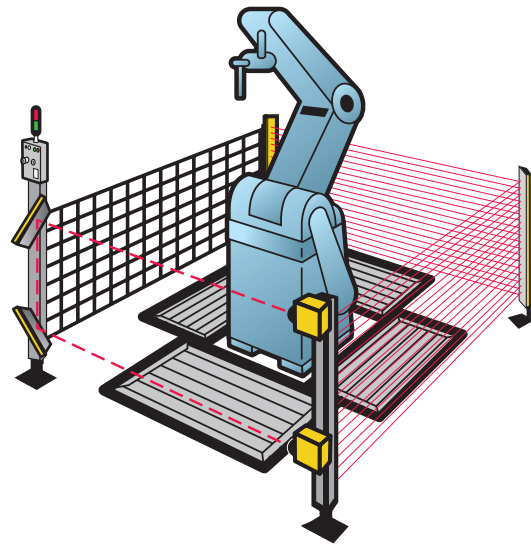
Hydraulic Press Brake With Light Curtain Safeguarding



Press Brake With Light Curtain Safeguarding and Clutch/Brake Control



Safeguarded Metal-Cutting Machine has Shield, Emergency-Stop Button, Danger Signs, and Belt Covers—Disconnect Switch and Motor Starters That Meet NFPA 79 Are Also Provided



Safeguarded Work Envelope of Robot has Perimeter Guards, Light Devices, Latchout/Reset Unit, and Safety Mats

The third day addresses safeguarding metal-cutting machines and large work-envelope safeguarding. Using ANSI (American National Standards Institute) B11-series safety standards, basic safeguarding guidelines for the following are discussed:

OUTLINE OF SAFEGUARDING SEMINAR (continued)

Day 3

ANSI B11.6, *Manual Turning Machines (Lathes)*

ANSI B11.7, *Cold Header and Cold Formers*

ANSI B11.8, *Drilling, Milling, and Boring Machines*

ANSI B11.9, *Grinding Machines*

ANSI B11.10, *Metal Sawing Machines*

ANSI B11.11, *Gear Cutting Machines*

ANSI B11.12, *Roll Forming and Roll Bending Machines*

ANSI B11.13, *Automatic Screw/Bar and Chucking Machines*

ANSI B11.14, *Coil Slitting Machines/Systems*

ANSI B11.15, *Pipe, Tube, and Shape Bending Machines*

ANSI B11.16, *Metal Powder Compacting Presses*

ANSI B11.17, *Horizontal Hydraulic Extrusion Presses*

ANSI B11.18, *Coil Processing Systems*

ANSI B11.19, *Performance Criteria for Safeguarding*

ANSI B11.20, *Manufacturing Systems/Cells*

ANSI B11.21, *Machine Tools Using Lasers for Processing Materials*

ANSI B11.22, *Turning Centers and CNC Turning Machines*

ANSI B11.23, *Machining Centers and CNC Milling, Drilling, and Boring Machines*

ANSI B11.24, *Transfer Machines*

ANSI/SPI B 151.1, *Horizontal (Plastic) Injection Molding Machines*

ANSI/RIA R15.06, *Industrial Robots and Robot Systems*

OSHA 1910.147, *Control of Hazardous Energy (Lockout/Tagout)*

The cutting and turning portion of this seminar primarily focuses on the ANSI requirements for chuck shields, chip/coolant shields, and electrical standards. Safeguarding by distance and location is also covered, as well as awareness barriers and devices, pressure-sensitive mats, emergency-stop devices, drop-probe devices, color-coding, warning signs, and training.

Using ANSI/RIA R15.06-1999 as a guideline, safeguarding methods for robots are discussed. This section includes the newly incorporated risk assessment/hazard analysis. An overview and interpretation of OSHA 29 CFR 1910.147 lockout/tagout and STD 1-7.3 are also included, along with a complete binder filled with information on machine safeguarding.

Our training center contains a number of machines including an engine lathe, a Bridgeport mill, and a drill press equipped with various chuck shields and chip/coolant shields.

See the registration form on page 6 or register online at www.rockfordsystems.com.

SEMINAR REGISTRATION FORM

Registration for Machine Safeguarding Seminar

Registration for the dates of _____

Company Name _____

Address Line 1 _____

Address Line 2 _____

City _____ State/Province/Region _____ ZIP/Postal Code _____

Phone _____ Ext. _____ Fax _____

E-Mail Address _____

Registrants:

Name _____ Title/Position _____

Name _____ Title/Position _____

Name _____ Title/Position _____

Name/Title of person making registration _____ Phone _____

Payment Options—Fees are payable in advance using any of the following forms of payment:

Check enclosed payable to Rockford Systems, Inc. Check amount _____

Invoice company Purchase Order No. _____ Attn: _____
(Your company must have prior credit approval for invoicing)

Billing Address: _____

Bringing check to seminar.

Credit card Charge to: American Express Visa MasterCard

Card No. _____ Exp. Date _____

Cardholder's Name _____ Signature _____

— Seminar dates are subject to change without notice —

Enrollments are limited and are taken on a first-come, first-served basis. Maximum class size is 35 people. Please call, mail, e-mail, or fax us to make your reservation.

By Phone: Call toll-free **1-800-922-7533**

By Mail: Complete and mail the above form to:

Seminar Registrar
Rockford Systems, Inc.
P.O. Box 5525
Rockford, IL 61125-0525

By E-mail: Complete and send form at our web site
www.rockfordsystems.com

By Fax: Send copy of completed form to:
815-874-7890

Substitutions may be made up to three days prior to the seminar. Please notify the seminar registrar with any changes.

On-Site Custom Seminars: We can present a shorter version of this seminar at your company. Please call us for details.