

Prevention Strategies for Electrical Hazards Strategies for Small Business Training Program **OVERVIEW**

Welcome . . .

. . . to a training course developed by the National Safety Council's Occupational Safety and Health Services.

The mission of the National Safety Council is to educate and influence people to prevent accidental injury and death.

Making Our World Safer



For more than 90 years, the Council has been accomplishing this mission through a global approach to safety and health issues, and a vast array of services and products. Through dozens of different programs and workshops, the Council's Occupational Safety and Health Services educates industry managers and safety and health professionals to improve the safety, quality, and production efforts of more than 10,000 organizations worldwide.

We are pleased to be the recipient of a Susan B. Harwood grant from the Occupational Safety and Health Administration (OSHA). Through this grant, we are able to present this *Prevention Strategies for Electrical Hazards* training program to you.

About the National Safety Council

History and Scope

Since our founding in 1913, the National Safety Council has served as the leading source of safety and health information, working for generations to protect lives and promote health with innovative programs and services. We began our efforts in the workplace – in factories, warehouses, and construction sites – making businesses aware of ways to prevent deaths and injuries on the job.

Since then, we have expanded our efforts to include office, highway, community, home, and recreational safety. This expansion includes occupational and environmental health and general wellness in order to promote safety and health 24 hours a day. And, our mission now encompasses all people across the globe.

How the Council Is Organized

Acknowledging our first 40 years of operation as an Illinois not-for-profit corporation, an Act of Congress on August 13, 1953 created the National Safety Council as a corporation under federal law. Public Law 269 of the 83rd Congress formally established the Council as a federally chartered organization. The Charter mandates that the Council be non-political and shall not contribute to or otherwise support or assist any political party or candidate for office.

The Council is governed by a Board of Directors. With the exception of two Council senior officers who are salaried, all the directors are unpaid volunteers. The Board, its officers and committees, aided by more than 2,000 volunteers, determine policies, operating procedures, and programs to be developed and carried out by the Council's 300-plus professional staff. Board members represent industry, labor, chapters, government, associations, and individuals. Council member firms employ more than 30 million people.

Our global subsidiary, the International Safety Council, is the Council's outreach beyond U.S. borders. Founded in 1992 as a separate non-profit affiliate corporation of the National Safety Council USA, the International Safety Council conveys expertise and our mission to industries, associations, and governments worldwide.

About the National Safety Council—continued

How the Council Is Funded

Council funding comes from four main sources:

1. Dues paid by a membership that numbers in the thousands.
2. Revenues gained from the sale of materials and programs to Council member firms and others.
3. Fees for on-site safety and health evaluations, tuition, and other fees for training and consulting projects by Council professionals.
4. Donations and grants.

The Council is not an agency of the government and general subsidies are not accepted.

How the Council Operates

The National Safety Council is not a governmental agency. We do not have the authority to legislate or regulate. But, we do have the ability to influence public opinions, attitudes, and behavior. We serve as an impartial information broker by bringing together safety and health professionals with government, associations, and media representatives to form national coalitions on key safety and health issues.

In its mission of protecting life and promoting health, the Council works with hundreds of allied organizations in industry, labor, government, education, and the community at-large, as well as with 39 Chapters. Because it is a public service organization, the Council can be impartial in its dealings with all groups and individuals.

The Council's method is to achieve consensus on safety and health topics through its volunteer members and coalitions of organizations. It then disseminates the best possible information through its massive communications network of publications, training programs, audiovisual materials, news releases, and broadcast public service messages.

Each autumn, the Council sponsors the Congress & Exposition, a major convention, attended by approximately 20,000 safety and health professionals. The Congress features nearly 300 educational sessions covering the latest developments in safety and health. It is the largest safety and health products and services event in North America.

About the National Safety Council—continued

Joining the Council in a Mission to Save Lives

Credibility, impartiality, and remaining true to the safety and health mission are hallmarks of National Safety Council service. The results of the organized safety movement are measurable. Since 1912, unintentional-injury deaths per 100,000 population in the United States were reduced 55%. Considering that this reduction took place during a period when the nation's population more than doubled, more than 4,300,800 fewer people died from unintentional injuries than would have been killed if the rate had not been reduced.

How to Reach Us

The National Safety Council and its network of local Chapters offer many ways for you and your organization to help protect life and promote health. Membership, volunteer participation, as well as using Council resources, programs, and materials will help to make your workplace, school, home, and community safer and healthier.

- The National Safety Council's network of Chapters conducts safety, health, environmental, and ergonomic efforts at the community level, providing training, conferences, workshops, consultation, newsletters, updates and safety support materials, as well as valuable networking avenues. Located in many cities across the U.S. and in the United Kingdom, our network extends the Council's visibility and provides a local voice for advocating issues that can educate, inform, protect, and save lives.

To access Council services and materials, you can work with full-time, full-service local Chapters in several locations. For a state-by-state listing, please call 1-800-621-7619 or visit our Website at <http://www.nsc.org>.

- The Council's Website offers national and international information, including locations for first aid and CPR courses, and defensive driving courses. Be sure to visit our Website periodically at <http://www.nsc.org> and be kept up-to-date on safety, health, and environmental issues.
- By attending this course, you have already become part of the National Safety Council's mission. Thank you for joining us in this very important effort!

About this Program

The *Prevention Strategies for Electrical Hazards* training program focuses on helping small businesses identify evaluate and control electrical hazards in their workplaces. Designed to increase and improve participants' knowledge, skills, and access to valuable resources, this training program will assist them in establishing systems that can help you prevent electrical injuries.

Program material is geared toward the small business owner, employer, manager, employee, and/or their representatives who have responsibility for managing electrical safety in the workplace; but who may have limited safety and/or training experience. The program addresses practical approaches to recognizing and controlling electrical hazards and managing these hazards through comprehensive systems.

Instructional Goals of the Program

During *Prevention Strategies for Electrical Hazards*, participants will gain the knowledge and basic skills to:

- Recognize the importance of identifying, evaluating and controlling common electrical hazards as a means of preventing deaths, injuries and illnesses.
- Recognize and correctly use key terms and concepts relating to electrical safety.
- Identify the four main types of electrical injuries.
- Recognize key elements of the OSHA Electrical Safety regulation.
- Recognize the NFPA 70E integration into OSHA Electrical Standards.
- Recognize the importance of electrical safety-related work practices.
- Differentiate between qualified and unqualified workers in order to identify appropriate training and protection requirements.
- Identify practices and procedures to protect employees who work on or near to electric conductors and equipment from the electrical hazards associated with this type of work.

About this Program—continued

Program Content

Content of this program reflects the needs and characteristics of small businesses and their workers, as well as effective training and education strategies resulting from NSC experience. The following modules of the program provide the structure for its delivery.

- Program Introduction
- Module 1: Introduction to Electrical Safety
- Module 2: Recognizing Electrical Risk Factors
- Module 3: Evaluating Electrical Risk Factors
- Module 4: Methods of Control
- Module 5: Implementing an Electrical Safety Program
- Program Conclusion

Program Materials

Four pieces of program materials support the *Prevention Strategies for Electrical Hazards* training Program.

- **Facilitator Guide.** This guide will be used by two levels of facilitators. First, National Safety Council facilitators will use this manual when they initially present the course to small business employers (or their representatives). Second, small business employers will use the Facilitator Guide to help them present the course to their employees.

The Facilitator Guide is written for and targeted to the small business employer. Because National Safety Council trainers are more experienced in facilitation, they will be able to extrapolate the information they need from the Facilitator Guide when they teach the course to employers (or their representative trainers). The Facilitator Guide includes the following features:

- ◆ A brief introduction to the National Safety Council, the Susan Harwood Grant and the course.
 - ◆ Suggestions for delivering the course content in a one-day classroom training.
 - ◆ Written at the eighth-grade reading level
- **PowerPoint Slides.** PowerPoint slides are available (for use on an LCD projector) for each of the learning modules. These will be used by National Safety Council facilitators in the train-the-trainer program. They are also available for employers on the Tools and Resources CD-ROM for use during their onsite training.

About this Program—continued

- **Participant Guide.** This guide will be used by two levels of participants. First, small business employers (and their representatives) will be given the guide during their training from NSC. Second, small business employees will receive the guide when they are being trained by their company.

Small business employers will receive the guide as a spiral-bound notebook when they attend the NSC training. They will also be given a Tools and Resources CD-ROM that contains a digital copy of the Participant Guide. When these employers train their employees, they will make copies of the guide from the digital file.

The Participant Guide contains the following:

- ◆ An introduction to the National Safety Council and the Susan Harwood Grant.
 - ◆ The materials needed to participate in the one-day class including learning objectives, key terms, learning activities and case study materials.
 - ◆ A table of contents for the Tools and Resources CD-ROM.
 - ◆ Highly visual pages with text written at approximately the 4th grade reading level.
- **Tools and Resources CD-ROM.** This disk will be given to participants in the primary train-the-trainer program. It will contain the tools and resources relating to the training program, including the following:
 - ◆ A list of resources that participants can use to get help or information.
 - ◆ Templates of the forms introduced in the training program. These templates can be printed and used at participants' worksites.
 - ◆ The electronic files for the Participant Guide that can be printed and used in onsite training.
 - ◆ The electronic files for the Facilitator Guide.
 - ◆ The electronic files for the PowerPoint presentations.
 - ◆ An electronic copy of OSHA Subpart S.

Preparing for the Program

The facilitator is responsible for carrying out the following preparation activities before delivering the training program. In some cases, depending on how Chapters are structured for training delivery, an administrative staff person may be responsible for certain activities.

Reminder: When facilitating a program or portion of a program for the first time, begin preparing far enough in advance so that you have adequate time to resolve questions, concerns, or problems. Review all program content in the entire Facilitator Guide and Participant Guide and PowerPoint slides.

- Ensure that all materials, training aids, and training sites are prepared.
- Read the entire Facilitator Guide. Be sure to read carefully the informational presentations and review instructional activities. Make appropriate content notes or write special reminders directly in the Facilitator Guide. Review all corresponding PowerPoint slides.
- If there are content areas with which you are unfamiliar, obtain and read appropriate materials. Additional reading includes resources listed on the *Tools and Resources* CD-ROM that accompanies the Participant Guide. Based on your need and interest, pursue additional learning related to occupational safety and health, especially as it pertains to electrical safety. It is important to have a strong base of knowledge about the content being presented, especially when participants have questions.
- Read the entire Participant Guide so that you are prepared to refer to corresponding material, especially activities, during program delivery.
- Rehearse key introductions, transitions, and conclusions, including the corresponding visual aids.
- Arrange to have the necessary equipment in the training room(s). Check all equipment before starting the training. Make sure it is operating properly and is set up the way you want it. For example, the overhead projector should be set up near the front of the room and all electrical cords should be out of your way and taped to the floor if necessary.
- Load the entire Facilitator CD-ROM that came with this program onto your C (hard) Drive. This will ensure that your PowerPoint presentations will run efficiently.
- Test the videos within the PowerPoint presentations (Module 1, Module 2 and Module 4) to ensure that they run properly. Note that the video files must be in the same electronic folder as the PowerPoint files.
- Have a class roster prepared/available for each participant. The roster should include information that may be used for future networking purposes (name, address, phone number, e-mail address, etc.).

Preparing for the Program—continued

- Be sure you are familiar with the facility and classroom. Check the following:
 - Emergency evacuation procedures.
 - Fire extinguishers.
 - Entrances/exits.
 - No smoking policy and approved smoking areas.
 - Light switches.
 - Rest rooms.
 - Drinking fountains.
 - Telephones.
 - Heating/air conditioning controls.

- Arrive at the training site at least an hour early on the first day of the training. This will give you sufficient time to make final changes to the room set-up and check the equipment. If you have never trained in that location, it will give you time to become acquainted with the room and facility.

- Take 10 minute breaks as indicated in the training program—approximately every 50-60 minutes. Participants need breaks to stretch and relax during a very full day of learning.

- Invite your OSHA representative to attend this training program. This person may even be willing to answer questions relating to ergonomics.

- Other:*

- Other:*

- Other:*

Materials and Equipment List

Each facilitator is responsible for ensuring that the following materials and equipment are available/prepared prior to delivering the *Prevention Strategies for Electrical Hazards* training program. In some cases, depending on how Chapters are structured for training delivery, an administrative staff person may be responsible preparing materials and equipment.

- One Participant Guide* for each participant and facilitator (plus 2 extra copies for guests)
- All registration materials, including name tags or tents and a participant roster
- 2 rolls of masking tape
- Scissors
- Flipchart with flipchart paper
- Flipchart markers (mainly black, blue, green, purple, and brown—bring a few red and/or orange markers for accent)
- Electrical plug strip with surge protection
- Trip protection for electrical cord
- Watch, clock, and/or timer (for timing activities, breaks, and lunches)
- Laptop or computer station with projection unit to display PowerPoint slides; PowerPoint 97 or higher must be loaded on the computer
- Screen
- PowerPoint slides; 7 separate files
- The OSHA Handbook for Small Businesses, U. S. Department of Labor, Occupational Safety & Health Administration, #2209, 1996
- National Safety Council book titled Small Business Safety & Health Manual
- Other:*

- Other:*

Optional Materials and Equipment List

In addition to the materials and equipment listed on the previous page, you might also want to have as many of the following items available in the classroom as possible.

- A copy of the NFPA 70E Standard for Electrical Safety in the Workplace (a copy can be purchased from the NFPA website (nfpa.org)).
- A copy of the OSHA 29 CFR 1910, Subpart S Electrical Standard (It is available electronically on your *Tools and Resources* CD-ROM).
- PPE—Gloves
- PPE—Fire resistant shirt
- PPE—Fire resistant pants
- PPE—Fire resistant coveralls
- PPE—Fire resistant coveralls
- PPE—Switching shirt
- PPE—Switching pants
- Other:*
- Other:*

At-a-Glance Training Schedule

The training schedule below is recommended for use in delivering the *Prevention Strategies for Electrical Hazards* training program.

| Module # | Module Title | Time |
|--------------|---|---|
| | Program Introduction | 8:30 - 9:00 AM (30 minutes) |
| 1 | Module 1: Introduction to Electrical Safety | 9:00 - 10:20 AM (80 minutes) |
| <i>Break</i> | | 10:20 - 10:30 AM (10 minutes) |
| 2 | Module 2: Recognizing Electrical Risk Factors | 10:30 - 11:45 AM (75 minutes) |
| <i>Lunch</i> | | 11:45 AM - 12:45 PM (60 minutes) |
| 3 | Module 3: Evaluating Electrical Risk Factors | 12:45 - 1:50 PM (65 minutes) |
| <i>Break</i> | | 1:50 - 2:00 PM (10 minutes) |
| 4 | Module 4: Methods of Control | 2:00 - 3:20 PM (80 minutes) |
| <i>Break</i> | | 3:20 - 3:30 PM (10 minutes) |
| 5 | Module 5: Implementing an Electrical Safety Program | 3:30 - 4:15 PM (45 minutes) |
| | Program Conclusion | 4:15 - 4:30 PM (15 minutes) |
| | | Total = 390 minutes (6.5 hours of instruction) |

Note: This schedule reflects 6.5 instructional/training hours, with three additional 10-minute breaks and a 60-minute lunch to address adult learning needs. If this schedule is modified, trainers must ensure that 6.5 hours of instructional time are accounted for in the program. Participant competence in the program is based on successful completion of the entire training.