Background
The original Personal Protective Equipment (PPE) Standards for general industry went into effect August 27, 1971. The Occupational Safety and Health Administration (OSHA) determined that these standards needed to be revised because they reflected the knowledge and practices of the 60s and 70s, and limited the use of new technology. OSHA also found that injuries were occurring to employees whether they wore PPE or not.

The revised PPE Standards (29 CFR Part 1910) went into effect July 5, 1994. This included:

• 29 CFR 1910.133—Eye and Face Protection
• 29 CFR 1910.135—Head Protection
• 29 CFR 1910.136—Foot Protection
• 29 CFR 1910.138—Hand Protection
• 29 CFR 1910.132—General Requirements

The revised standards address five main areas:
1) Current American National Standards Institute (ANSI) guidelines
2) Hazard assessment for each employee work area
3) Use of defective PPE
4) Employee training
5) Properly fitting PPE

A Look at the Updated Standards
29 CFR 1910.133—Eye and Face Protection
Eye and face devices purchased after July 5, 1994, must comply with ANSI Z87.1-1989 instead of Z87.1-1968. Equipment purchased prior to July 5, 1994, shall meet the 1968 standard or be equally effective. The 1989 ANSI standard changed the test requirements for flammability for plastics, increased the minimum thickness of removable welding lenses and required the manufacturer’s name to be marked on the protective device.

29 CFR 1910.135—Head Protection
Protective helmets purchased after July 5, 1994, must comply with ANSI Z89.1-1986 instead of ANSI Z89.1-1969. Equipment purchased prior to July 5, 1994, shall meet the 1969 standard or be equally effective. The revised standard changed the testing requirements for head protection. The method for impact testing was upgraded from a mechanical test to an electronic test. This upgraded method gives a more accurate reflection of the helmet’s level of protection.

29 CFR 1910.136—Foot Protection

Employers must select appropriate hand protection for employees exposed to hazards such as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns and temperature extremes.

The employer shall select appropriate hand protection relative to the task to be performed, conditions present, duration of use and any hazards or potential hazards identified in the hazard assessment.

29 CFR 1910.132—General Requirements
Added wording regarding proper fit of PPE. Because of the increase of females in the workplace, OSHA felt that wording was needed to accommodate all sizes of workers.

The General Requirements section was also expanded to include information on Hazard Assessment, Training and Defective PPE, effective October 5, 1994. OSHA is also proposing these PPE requirements be adopted for Shipyard Employment (29 CFR Part 1915).

Hazard Assessment
The new General Requirements require the employer to conduct a hazard assessment (walk-through survey) of each work area and certify that it has been done. This certification must show the date of assessment, workplace evaluation and the name of the person certifying the evaluation. The survey should consider the following items:

• Impact
• Penetration
• Compression (roll-over)
• Chemicals
• Heat
• Harmful dust
• Light (optical) radiation

After the survey has been completed, the employer shall select proper PPE to suit the hazards. Employees who purchase their own equipment must follow the same criteria the employer uses.
Training
Employees must be trained in several aspects of PPE. These include, but are not limited to:
• When they must wear PPE
• What type of PPE is necessary
• How to properly don, doff, adjust and wear PPE
• Limitations of PPE
• Care, maintenance, useful life and disposal of PPE
To ensure each employee is properly trained, clear measurable objectives should be thought out. Since the regulation requires the employee to demonstrate an understanding of the above list, objectives should center around these criteria. For example, in reviewing limitations of gloves, the employee should know about permeation and breakthrough times of the chemicals they are dealing with. They should also know how to clean and inspect the gloves and how to properly dispose of a glove that cannot be decontaminated.

The employer must verify that they have provided all the necessary training. A written certification showing the name of the employee and the date of training is required. The document must be identified as a certificate of training. Retraining must be completed if there is a change in workplace conditions, a change in the PPE used, or the employee demonstrates inadequacies in the skills required to use the PPE.

Defective PPE
The General Requirements section was strengthened and extended to include a paragraph that indicates defective or damaged PPE shall not be used. It covers all defects or damages—not just visible ones. Employees can determine if the protective ability of the PPE has been compromised by handling or donning the equipment.

Common Questions
Q. Are employers required to select PPE that meets ANSI standards?
A. The revised PPE Standards require employers to select PPE that either meets ANSI standards or is equally effective.

Q. When is a reassessment of work areas needed?
A. Work areas must undergo a hazard assessment anytime there is a process change, new equipment is used, or accident statistics point to a problem area.

Q. Do these revisions address respirators?
A. No. 29 CFR 1910.134, Respiratory Protection and 29 CFR 1910.137, Electrical Protective Devices were not addressed with these revisions. They will be discussed separately at a later date.