

APPENDIX - HAZARD ASSESSMENT PROCEDURE

Non-mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection

This Appendix is taken from OSHA and is reproduced in an abridged manner here. It is intended to provide compliance assistance for employers and employees in implementing requirements for a hazard assessment and the selection of personal protective equipment.

1. *Controlling hazards.* PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.
2. *Assessment and selection.* It is necessary to consider certain general guidelines for assessing the foot, head, eye and face and hand hazard situations that exist in an occupational or educational operation or process and to match the protective devices to the particular hazard. It should be the responsibility of the safety officer to exercise common sense and appropriate expertise to accomplish these tasks.
3. *Assessment guidelines.* In order to assess the need for PPE the following steps should be taken:
 - a. *Survey.* Conduct a walk-through survey of the areas in question. The purpose of the survey is to identify sources of hazards to workers and co-workers. Consideration should be given to the basic hazard categories:
 - i. Impact
 - ii. Penetration
 - iii. Compression (roll-over)
 - iv. Chemical
 - v. Heat
 - vi. Harmful dust
 - vii. Light (optical) radiation
 - b. *Sources.* During the walk-through survey the safety officer should observe:
 - i. sources of motion; i.e., machinery or processes where any movement of tools, machine elements or particles could exist, or movement of personnel that could result in collision with stationary objects;
 - ii. sources of high temperatures that could result in burns, eye injury or ignition of protective equipment, etc.;
 - iii. types of chemical exposures;
 - iv. sources of harmful dust;
 - v. sources of light radiation, i.e., welding, brazing, cutting, furnaces, heat treating, high intensity lights, etc.;
 - vi. sources of falling objects or potential for dropping objects;
 - vii. sources of sharp objects which might pierce the feet or cut the hands;
 - viii. sources of rolling or pinching objects which could crush the feet;
 - ix. layout of workplace and location of co-workers; and
 - x. any electrical hazards. In addition, injury/accident data should be reviewed to help identify problem areas.
 - c. *Organize data.* Following the walk-through survey, it is necessary to organize the data and information for use in the assessment of hazards. The objective is to prepare for an analysis of the hazards in the environment to enable proper selection of protective equipment.
 - d. *Analyze data.* Having gathered and organized data on a workplace, an estimate of the potential for injuries should be made. Each of the basic hazards (paragraph 3.a.) should be reviewed and a determination made as to the type, level of risk, and seriousness of potential injury from each of the hazards found in the area. The possibility of exposure to several hazards simultaneously should be considered.
4. *Selection guidelines.* After completion of the procedures in paragraph 3, the general procedure for selection of protective equipment is to:
 - i. become familiar with the potential hazards and the type of protective equipment that is available, and what it can do; i.e., splash protection, impact protection, etc.;
 - ii. compare the hazards associated with the environment; i.e., impact velocities, masses, projectile shape, radiation intensities, with the capabilities of the available protective equipment;
 - iii. select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards; and
 - iv. fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end users be made aware of all warning labels for and limitations of their PPE.