UCCS SAFE OPERATING PROCEDURE

45. PERSONAL PROTECTIVE EQUIPMENT

(For assistance, please contact Environmental Health & Safety)

Use of appropriate Personal Protective Equipment (PPE) is the second line of defense against exposure to hazardous chemicals. Engineering controls, such as fume hoods and other ventilation devices, are the first line of defense. When engineering controls are not adequate to minimize exposure the employee’s department must provide adequate and appropriate PPE. PPE components vary with the, specific chemicals, which dictate the route and degree of exposure. General classes of PPE, with specific examples, are discussed below. REFERENCES TO OSHA STANDARDS ARE INTENDED TO REFER TO INDUSTRY STANDARD GUIDELINES, NOT TO IMPLY A REQUIREMENT FOR COMPLIANCE.

Respirators - may be required when air contaminants cannot be reduced to an acceptable level. Non-employee students or guests are prohibited from areas where airborne chemical contaminants cannot be reduced without PPE. The appropriate type of respirator depends on the concentration and the form of contaminants. EMPLOYEES WHO ARE REQUIRED TO USE RESPIRATORS MUST COMPLETE A MEDICAL EXAM, ATTEND TRAINING, AND PARTICIPATE IN FIT TESTING ON AN ANNUAL BASIS AT DEPARTMENT EXPENSE. EH&S can provide assistance in meeting this requirement.

Eye and Face Protection – goggles, face shields, or appropriate safety glasses with side shields may be required when there is potential for exposures to chemical splashes or fumes, dusts, flying projectiles, heat, or optical radiation. All protective eyewear must meet the American National Standard for Eye Protection for Occupational and Educational Eye and Face Protection Z87.1.

Foot Protection – is provided by wearing footwear appropriate to the hazard. In general, open toed shoes such as sandals is inappropriate since the potential for a stubbed toe or dropping something on your foot is present even in the office environment. Steel-toed shoes are highly recommended for worksites in which the potential for injury is higher, such as facilities and material handling. Flat, rubber or textured soles are highly recommended for wet and icy conditions. All safety toe shoes must meet the American National Standards Institute (ANSI) consensus standard on protective footwear (ANSI Z41-1991).

Hand Protection – the appropriate gloves provide protection for many types of hazards, including prevention of chemical exposure. Like other classes of PPE, many types of gloves are available, with a wide range of materials, construction and thickness. Selection of the appropriate glove depends on specific hazards and chemicals to which the user is exposed, manual dexterity considerations, and the severity of exposure (e.g., incidental, or low hazard contact versus immersion of the hands, or high hazard contact). Glove manufactures provide permeability and use data for their products; it is imperative to review this data to select the appropriate glove. Examination-type gloves are very thin and provide protection only for incidental contact (e.g., unexpected small droplets). These gloves should be removed and disposed immediately upon contamination and the hands washed to prevent exposure.