29CFR 1030 – Bloodborne Pathogenic Standard

Personal Protective Equipment --

1910.1030(d)(3)(i)

Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

Summary and Explanation of the Standard

OSHA believes that the endpoint to be achieved is for the chosen personal protective equipment to adequately protect the employee's skin, clothing and mucous membranes against contact with blood or other potentially infectious materials (Society of Hospital Epidemiologists of America, Ex. 20-1002; APIC - Indiana, Ex. 20-139; Parkview Memorial Hospital, Ex. 20-136; VA - Edward J. Hines Jr. Hospital, 20-961). Therefore, performance criteria have been added to paragraph (d)(3)(i) delineating the characteristics of "appropriate" personal protective equipment. This provision states that personal protective will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or otherwise reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used. OSHA has concluded that this provision increases the performance-orientation of the regulation, supplies the criteria necessary for proper selection of equipment, and increases flexibility in attaining compliance. Since this endpoint is the purpose of any personal protective equipment, it should be noted that the provision refers to all personal protective equipment rather than a particular item (e.g., gowns, masks, aprons, etc.).

The second query involved provision of protective equipment (particularly gowns, aprons, and other body clothing) in general. A number of commenters asserted that transmission of bloodborne diseases has not been shown to occur through intact skin and some argued that the effectiveness of such equipment to prevent transmission has not been demonstrated (APIC - Central Ohio, Ex. 20-1158; G.S. Naylor, M.D., & K.A. Yates, R.N., Ex. 20-255; UCSD Medical Center, Ex. 20-156; Dakota Hospital, Ex. 20-
1. All health-care workers should routinely use appropriate barrier precautions to prevent skin and mucous-membrane exposure when contact with blood or other body fluids of any patient is anticipated. . . .

2. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. . . . (Ex. 6-153)

In their follow-up document, "Update: Universal Precautions for Prevention of Transmission of Human Immunodeficiency Virus, Hepatitis B Virus, and Other Bloodborne Pathogens in Health-Care Settings," the CDC continues to recommend preventing skin exposure and utilization of personal protective equipment.

Protective barriers reduce the risk of exposure of the health-care worker's skin and mucous membranes to potentially infective materials. For universal precautions, protective barriers reduce the risk of exposure to blood, body fluids containing visible blood, and other fluids to which universal precautions apply. Examples of protective barriers include gloves, gowns, masks, and protective eyewear. . . .

2. Use protective barriers to prevent exposure to blood, body fluids containing visible blood, and other fluids to which universal precautions apply.

3. Immediately and thoroughly wash hands and other skin surfaces that are contaminated with blood, body fluids containing visible blood, or other body fluids to which universal precautions apply. (Ex. 6-426)

With regard to preventing not only skin and mucous membrane contact but also contamination of work clothes or street clothes with blood or other potentially infectious materials, the CDC's document "Guidelines for Prevention of Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Health-Care and Public-Safety Workers" recommends to fire and emergency medical services:

. . . Gowns or aprons should be worn to protect clothing from splashes with blood. If large splashes or quantities of blood are present or anticipated, impervious gowns or aprons should be worn. An extra change of work clothing should be available at all times. (Ex. 15)

This same document, under Law-enforcement and Correctional Facilities, states:

. . . In case of blood contamination of clothing, an extra change of clothing should be available at all times. (Ex. 15)
The CDC recommends, therefore, that personal protective equipment should be used to protect not only skin and mucous membranes against contact with blood and other potentially infectious materials but should also be utilized to prevent contamination of clothing. Considering these recommendations, the Agency has concluded that requiring provision of personal protective equipment to prevent work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes from contact with blood or other potentially infectious materials is justified and appropriate.

From: