

**Hazardous Materials Training Program  
Institute of Labor and Industrial Relations  
University of Illinois at Urbana Champaign  
504 E. Armory Ave.  
Champaign, IL 61820  
(217) 333-0640  
(217) 244-8396 (fax)**

Dear Doctor,

Your patient has enrolled in a training program for hazardous material workers. The training may include full "dress-out" in personal protective equipment (PPE), including a respirator. Medical clearance is required prior to training because of the remote possibility of untoward health effects.

Full PPE involves wearing an air-tight, water-tight, fully encapsulated protective suit, which weighs up to 25 pounds. The self-contained breathing apparatus (SCBA) may weigh up to 35 pounds carried by shoulder straps on the back. Trainees may be required to wear full PPE for up to one-half hour at a time and perform tasks such as maneuvering 55-gallon drums or simulate shoveling contaminated dirt. This may take place in heat or cold, indoors or outdoors.

Health risks include heat stress and demands on the cardiopulmonary systems. The work of breathing is increased, with increased inspiratory and expiratory resistance, increased dead space, and changes in minute ventilation. There is increased cardiac demand. The clothing itself induces heat stress, and inspired air in respirators may become heated. Other effects are reduced visual fields and voice clarity. Claustrophobia may be a problem. Trainees will receive on-site information about the signs and symptoms of heat stress.

Obvious medical exclusion for use of PPE and respirators include: uncontrolled hypertension, heart attack in the last six months, angina pectoris, aortic stenosis, history of spontaneous pneumothorax, moderate or severe pulmonary disease, obesity and poor conditioning.

Please administer the attached brief history and physical examination, review the results with the trainee, sign, and mail the medical clearance statement to the training program. Laboratory studies (e.g., pulmonary function, cardiogram, exercise testing) are not required unless you feel they are indicated.

Thank you very much for your cooperation.

Sincerely,

Ed Hertenstein  
Project Director