

[ABS04]

Respiratory Protection Throughout the 1st Decade of the 21st Century: a U.S. Perspective

Boord, Les

National Institute for Occupational Safety and Health, National Personal Protective Technology Laboratory

The need for effective respiratory protection has never been greater than during the 1st decade of the 21st century. A series of catastrophic events and emerging technology created the need for worker protection from a wide spectrum of inhalation hazards. In the past decade respiratory protection was needed for inhalation hazards that ranged from traditional industrial hazards to new industrial hazards to elusive and novel biological/viral hazards to destructive chemical warfare agents. Some of the events were so severe, catastrophic and urgent that the normal hierarchy for industrial hygiene practice consisting of hazard elimination, engineering controls, administrative controls and personal protective equipment was turned upside down and could not be implemented. The challenges for respiratory protection were significant. The small but responsible respiratory protection community comprised of personal protective equipment (respirator) manufacturers, academia, labor, standards development organizations, government and other subject matter experts was called upon to collaborate in an unprecedented manner. In some cases the path from research to practice was accelerated in another case the need for realistic user training was raised to new heights and in still another case the debate about what protection was needed received attention from the highest level of scholarly review and evaluation. In all cases, workers responding to and performing recovery operations from the events and those working with new technology were protected.

What should be expected for the 2nd decade of the 21st century?