

MILESTONES IN RESPIRATORY PROTECTION

- Pliny the Elder (**23–79 AD**) used animal bladder skins to filter dust while crushing cinnabar
- Leonardo da Vinci (**1452–1519**) recommended the use of wet cloths over the mouth and nose

Pre-1800s



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Photo by the Fire Museum Network



1800s–1919

- In **1877**, the English invented and patented the Nealy Smoke Mask
- United States Bureau of Mines (USBM) was established in **1910**
- USBM produced Schedule 13, “Procedure for Establishing a List of Permissible Self-Contained Mine Rescue Breathing Apparatus” in **1919**

- In **1920**, MSA Safety Company manufactured the Gibbs respirator, the first respirator approved by the USBM for industrial use
- The Hawk’s Nest Tunnel Disaster in the early **1930s** expedited Schedule 21’s standards for filter-type dust/fume/mist respirators

1920–1949



Photo by MSA

Photo by MSHA



1950–1969

- Schedule 21B’s expansion in **1965** provided further regulation and protection for industrial workers
- The **1969** Federal Coal Mine Health and Safety Act resulted in regulations governing the certification and use of approved respirators in the mining industry

- The Occupational Safety and Health Act of **1970** established both NIOSH and OSHA to protect the health and safety of American workers
- In **July 1995**, the respirator certification regulation, 30 CFR 11, was replaced by 42 CFR 84
- The necessity for respirators in healthcare became apparent with the outbreak of TB in the **1990s**

1970–1999

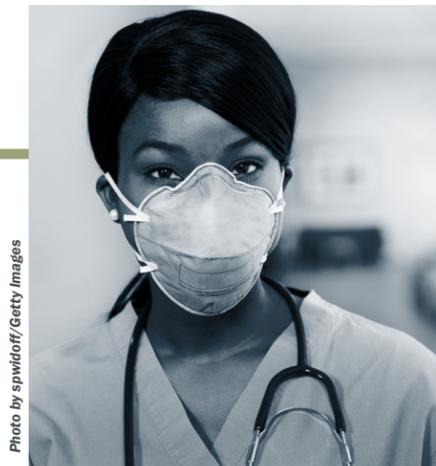
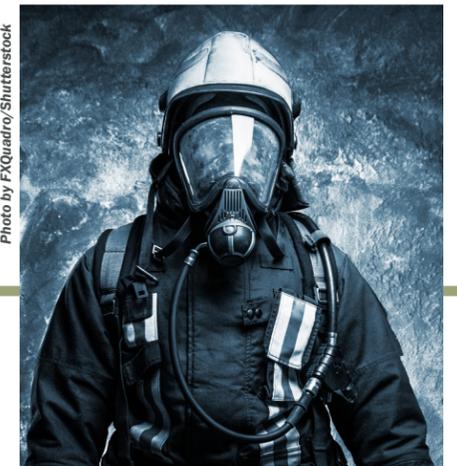


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2000–2019

- Congress created the NIOSH National Personal Protective Technology Laboratory in **2001**
- The focus of respiratory protection for first responders shifted after the 9/11 terrorist attacks
- Public health emergencies like the **2009** H1N1 pandemic brought attention to the importance of respirators for healthcare workers



Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

100 Years of Respiratory Protection History, <https://www.cdc.gov/niosh/npptl/Respiratory-Protection-history.html>

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