Respirator Donning, Doffing, and Seal Checks Stats and Facts

FACTS

1. Many employees continue to struggle with respiratory protection in the workplace despite an entire industry dedicated to respiratory PPE, air quality monitoring and engineering control techniques.
2. Occupational respiratory mortality is due to years of repeated exposures that eventually result in chronic, terminal respiratory illnesses like silicosis, mesothelioma, pneumoconiosis and other lung diseases. By the time workers are aware of their symptoms, it’s often too late.
3. The use of respirators prevents the spread of infectious agents, but leakage hampers its protection.
4. Occupational respiratory disease surveillance is the ongoing, systematic collection, analysis, and dissemination of health and hazard data to monitor the extent and severity of occupationally-related lung disease and related workplace exposures for use in public health education and in disease prevention.

STATS

- NIOSH National Occupational Respiratory Mortality System (NORMS) data shows that between 2006 and 2016, 51,822 U.S. residents died from occupational-related respiratory illnesses. That’s an average of more than 5,000 each year. In 2016 alone, occupational-related respiratory illnesses took the lives of 4,500 Americans. That makes occupational respiratory illness the single greatest cause of occupational fatalities.
- Respiratory exposure to harmful substances rarely results in immediate, on-the-job fatality. In fact, the BLS Census for Fatal Occupational Injuries (CFOI) 2011-2017 shows that in

2016, inhalation of harmful substances resulted in just 39 of the 5,190 on-the-job fatalities recorded that year.

- The N95 respirator is designed to prevent inhalation of droplets but ill-fitting respirators, the average penetration by ambient aerosol was found to be 33%, compared with 4% for well-fitting respirators.
- OSHA’s Respiratory Protection Standard introduced in 1998 have helped to gradually lower the rate of fatal occupational respiratory illness from greater than 24 per 100,000 workers pre-1998, to around 15 per 100,000 workers by 2016.