

Firing Ranges and Elevated Blood Lead Levels

The Centers for Disease Control and Prevention (CDC) and the National Institute for Occupational Safety and Health (NIOSH) are advising employers, employees, and the general public that indoor firing ranges are a recognized source of exposure to lead dust.

Employees of firing ranges, law enforcement officers and security personnel who practice at firing ranges, and construction industry workers who repair firing range buildings, should be aware of the risk for lead exposure at these facilities.

Lead can have toxic effects on all organ systems of the body, such as irreversible neurological damage, renal disease, cardiovascular effects, and reproductive toxicity. Because of the highly toxic nature of lead, an occupational exposure limit of 50 micrograms of lead per cubic meter of air ($\mu\text{g}/\text{m}^3$) has been established.

A recent CDC Morbidity and Mortality Weekly Report described two studies of lead dust exposures at firing ranges – one conducted by the Washington State Division of Occupational Safety and Health and one conducted by the NIOSH Health Hazard Evaluation program. Both studies revealed high exposures to lead and elevated blood lead levels.

NIOSH has reported that recreational users of firing ranges and the families of both employees and customers are at risk for lead exposure. NIOSH has also analyzed Epidemiology Surveillance Program data and found elevated blood lead levels for 2,056 law enforcement officers and firing range workers between 2001 and 2012.

Title 10, Code of Federal Regulations, part 851 (10 CFR 851), requires compliance with 29 CFR 1910.1025, which establishes requirements that must be implemented when there is potential worker exposure to lead. This Occupational Safety and Health Administration standard should be reviewed to ensure workers are appropriately protected from the health hazards associated with exposure to lead.

More information on this topic is available at:

29 CFR 1910.1025: Lead

www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10030

Workplace Safety and Health Topics: Lead

www.cdc.gov/niosh/topics/lead/