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TO:           The Honorable Brian Boquist, Chair  
              Senate Committee on Veterans and Emergency Preparedness  
              The Honorable Paul Evans, Chair  
              House Committee on Veterans and Emergency Preparedness

FROM:       Brett Sherry, Program Manager  
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SUBJECT:    Health Effects of Lead

Chairs Boquist and Evans and members of the committees; my name is Brett Sherry, and I'm a Program Manager with the Oregon Health Authority. I'm here to provide information on the health implications of lead exposure in Oregon, as well as the most common causes of lead poisoning in children and adults.

Lead is a toxic metal that serves no useful purpose in the human body. Lead toxicity can affect every organ system, but the most sensitive target of lead exposure is the nervous system. Lead is particularly dangerous to children because their growing bodies absorb more lead than adults and their brains and nervous systems are more sensitive to the damaging effects of lead. Babies and young children can also be more exposed to lead because they explore their world with their hands and put them into their mouths. No safe blood lead level in children has been identified.

Lead can be found in all parts of our environment – the air, the soil, and the water. Lead and lead compounds have been used in a wide variety of products found in and around our homes, including paint, ceramics, pipes and plumbing materials, solders, gasoline, batteries, ammunition and cosmetics. Although regulation has significantly reduced the use of lead used in everyday products (gasoline, paint, plumbing, etc.), many homes and schools still have lead present.

The Oregon Health Authority (OHA) receives all blood lead test results for the state of Oregon, and follows up on children and adults that have confirmed blood lead levels of 5 micrograms per deciliter (ug/dL) in children and 10 ug/dL in adults. The most common cause of childhood lead poisoning in Oregon is exposure to lead-based paint, which accounts for over 50% of the cases for which a source is identified. Most lead poisoning cases in adults are occupational in nature (bridge painting, battery recycling) or involve a hobby (stained glass, home production of fishing weights or bullets).

OHA partners with local health jurisdictions to conduct environmental investigations for children with confirmed blood lead levels of 5 ug/dL or above. The intent of these investigations is to locate the potential source of lead and prevent future exposures.

Adults with blood lead levels of 10 ug/dL or above are contacted by OHA to help identify the source of lead exposure. OHA contracts with Oregon Occupational Safety and Health Administration (OR-OSHA) when cases are considered to be work related.

Unfortunately, investigations of lead poisoning cases with both children and adults do not always identify a source of the lead exposure.

Blood lead levels have declined in Oregon and across the nation in the past 10 years. For example, in 2006 OHA received 68 cases of childhood lead poisoning (confirmed blood lead levels of 10 ug/dL or greater). In 2015 OHA received reports of 15 children with confirmed blood lead levels of 10 ug/dL or greater. Adult levels are also declining, with 99 confirmed cases of 10 ug/dL or greater in 2006 compared with 74 confirmed cases in 2015. In 2012, the Center for Disease Control and Prevention lowered the action level from 10 ug/dL to 5 ug/dL. In 2016, OHA received 87 confirmed blood lead levels in children that were 5 ug/dL or greater. Although public health efforts to reduce the rates of lead poisoning have been effective, there is still work to be done.

In response to an inquiry from a local media outlet in 2016, the OHA reviewed its records of all blood lead test data received for both children and adults. Although exposure to lead dust at an armory has the potential to result in lead poisoning, OHA was not able to identify any cases of elevated blood lead levels where exposure to lead at an armory was the suspected source. OHA has since added the topic of armories to its list of questions that are asked when interviewing adults and parents of children with elevated lead levels. Specifically, if the individual spent any time (shooting or otherwise) in an armory.

OHA also has a Lead-based Paint Program that has regulatory authority over certain lead-based paint activities in the state. This includes Lead Abatement and Renovation, Repair and Painting activities. If an armory had lead-based paint present, and specific

criteria were met, OHA would have regulatory authority over lead dust levels at the site. However, OHA would not have jurisdiction over lead dust that is present from ammunition storage or the firing of munitions. There are worker protection standards

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in place from OR-OSHA for lead in air, but not for surfaces. I am unaware of other regulatory authority that could address lead contamination on surfaces of such a site.

I'm available as a resource to the committee if there are any questions or concerns. Thank you for the opportunity to provide testimony on this important issue.