

Lead Rule Stakeholders

May 4, 2018



Washington State Lead Rulemaking Status



Purpose

- Background lead levels have significantly reduced since original adoption of the lead rule
 - Average adult blood lead reduced from ~20 $\mu\text{g}/\text{dL}$ to <2 $\mu\text{g}/\text{dL}$
 - Studies have demonstrated adverse effects at any blood lead level
 - Significant permanent impairment is now documented at below 40 $\mu\text{g}/\text{dL}$

Purpose

- Primary focus of the rulemaking is to reduce occupational blood lead
 - Several existing recommendations for action at lowered levels
 - AECOM recommendation selected as the general model

Purpose

- To achieve the lower blood lead levels the current draft uses multiple strategies
 - Greater emphasis on hygiene and housekeeping
 - Broad criteria for requiring blood lead testing
 - Revised permissible exposure limit
 - Requiring review and correction when there are elevated blood lead levels, before medical removal

Proposed Blood Lead Criteria

- Advisory level 5 µg/dL
- Control level 10 µg/dL
- Multi-test removal level 20 µg/dL repeated
- Single-test removal level 30 µg/dL
- Return to work level 15 µg/dL repeated

Blood Lead Testing

- Blood lead testing proposed for all workers covered by the rule
- Action levels require regular monitoring
- Below action level, verification testing required after starting work and then every three years

Proposed Action Levels

- Airborne lead 10 $\mu\text{g}/\text{m}^3$ TWA_{8e}
- Surface contamination 1000 $\mu\text{g}/\text{dm}^2$
- Metals 20 %
- Non-metals 0.5 %
- Aerosol 100 ppm

Proposed Permissible Exposure Limit

- The current draft establishes two permissible exposure limits
- PEL, $20 \mu\text{g}/\text{m}^3 \text{TWA}_{8\text{e}}$
 - Control plan, regulated areas, hygiene facilities, half-face respirators, work practice, and tool controls
- Secondary PEL, $50 \mu\text{g}/\text{m}^3 \text{TWA}_{8\text{e}}$
 - Capital controls, respiratory protection APF

Lead Definition

- Current draft covers all lead exposures
- Exemption for some organic compounds is removed
- Exemption for minimal exposure situations
 - Such as working in a building with undisturbed lead paint or working with packaged materials.

DOSH Lead Rule Proposal

Not Lead Work

Basic Rules

- Training—Poster
- Housekeeping
- Hand/face Washing
- Blood lead validation tests

Action Level

- Training
- Blood lead monitoring
- Air monitoring
- Voluntary Respirator

PEL Program

- Regulated area
- Written program
- Training—site specific
- Work practice, administrative and tool controls
- Personal protective equipment
- Showers, changing, eating facilities
- Hand/face washing verification
- Respirators—1/2 face

Medical Removal

- No action-level exposure
- Economic protection
- Medical exams

Secondary PEL

- Capital controls
- Respirators
- Decontamination verification

Lead Exposure

Airborne: 1.5 $\mu\text{g}/\text{m}^3$

Aerosolizing: 50 ppm

Disturbing: 600ppm

Coatings: 1.0 mg/cm²

Surfaces: 4.3 $\mu\text{g}/\text{dm}^2$

Molten metal: 1 ppm

Airborne: 10 $\mu\text{g}/\text{m}^3$

Metal: 20%

Aerosolizing: 100 ppm

Disturbing: 5000 ppm

Surfaces: 1000 $\mu\text{g}/\text{dm}^2$

Airborne: 20 $\mu\text{g}/\text{m}^3$

BLL: 10 $\mu\text{g}/\text{dL}$

Airborne: 50 $\mu\text{g}/\text{m}^3$

BLL: 10 $\mu\text{g}/\text{dL}$ persistent

BLL: 15 $\mu\text{g}/\text{dL}$ repeated

BLL: 20 $\mu\text{g}/\text{dL}$ repeated

BLL: 30 $\mu\text{g}/\text{dL}$

Second Discussion Draft Rule Explanation Graphic: 4/24/2018

Initial Classification of Work

- Expanded direction for pre-work assessments
- Tables of presumed exposure protection levels
 - Trigger tasks from current construction rule
 - Additional tasks for construction and other industries
- Clear expectation for providing protections at start of work

Basic Rules

- Housekeeping requirements
 - Added specifications on work practices
- Training
 - Lead information poster covers basic worker information
- Hand/face washing
 - Specifications added to rule for addressing lead
 - Previously required by general hygiene rule

Lead Control Requirements

- Work practice and tool controls
 - PEL, 20 $\mu\text{g}/\text{m}^3$ TWA_{8e}
- Capital controls
 - Secondary PEL, 50 $\mu\text{g}/\text{m}^3$ TWA_{8e}
- Added specifications for ventilation control review
 - Engineer specified monitoring protocol
- Three year review cycle for controls

Worker Choices

- Employers required to allow voluntary use of respirators
 - above the airborne action level, $10 \mu\text{g}/\text{m}^3$
- Added protection available at PEL
 - Worker may request respirator upgrade
 - Worker may use decon facilities
 - Employer required to monitor decon at SPEL

Employer Managing Blood Lead Levels

- Employer must develop written plan
 - Requirement at blood lead control level, 10 $\mu\text{g}/\text{dL}$
 - Must assess and improve hygiene and work practices
- Persistent elevated blood levels require further review of PPE and controls

Compliance Protocols

- Industry and task specific
 - Give directions for clearly compliant work practices
 - Offer reductions in monitoring requirements
- Incidental lead paint work (EPA RRP)
 - Handling lead paint in residential and light commercial construction
 - Specifications for work and PPE
 - Employer can use presumed exposure levels

Compliance Protocols

- Gun ranges
 - Added direction on work practices and controls
 - Allows using presumed exposures for some tasks
- Clean areas
 - Protocols for verifying minimal lead in work area
 - Employer may exclude employees in some areas from training and other requirements of the rule

Compliance Protocols

- Well managed blood lead levels
 - Reduced requirements for employers demonstrating that worker blood lead levels are kept below 10 µg/dL
 - DOSH will not conduct scheduled inspections
 - DOSH will not enforce PPE, work practice, or control requirements below the Secondary PEL
- Maintenance and repair work
 - Alternate protocols for tasks performed sporadically