Outline

• Legislative and Regulatory History of Lead in the U.S.
• Where the U.S. is Today
• Children's Blood Lead Levels in the U.S. (1976-2010)
• Federal Partners and Responsibilities
• U.S. Regulations and Regulatory Programs
Background

• In 1971, Former U.S. Surgeon General Jesse L. Steinfeld estimated 400,000 pre-school American children have elevated body lead burdens

• The National Bureau of Standards in 1972 estimated that 600,000 young children have unduly high levels of lead in blood
Significant Legislative and Regulatory History of Lead in the U.S.

- **1973**: Lead in Gasoline
- **1978**: Lead in Paint for toys and other children’s products; Air and Workers’ Exposure
- **1986**: Lead in Pipes
- **1988**: Childhood Health Program
- **1991**: Lead in Drinking Water
- **1995**: Lead Solder in Cans
- **2001**: ID of Hazardous Lead paint in Homes
- **2009**: Lower Limit for Lead in Paint in toys and other children’s products
- **2011**: Lower Limit for Lead in Paint in toys and other children’s products

### Actions related to paint
- 1973
- 1978
- 1988
- 1991
- 1995
- 2001
- 2009
- 2011

### Other actions
- 1973
- 1978
- 1986
- 1991
- 2001
Where the U.S. is Today

• Lead exposures have declined since 1970s, due largely to the removal of lead from gasoline and fewer homes with lead-based paint
  o Most common source of lead exposure today:
    ➢ Lead paint in older housing and associated dust and soil.
  o 22% of U.S. homes have significant lead-based paint hazards

• The most current science tells us that:
  o No level of childhood lead exposure can be considered safe
  o Even very low levels of lead could affect intelligence, neurobehavioral development, and hearing
Children's Blood Lead Levels in the U.S. (1976-2010)

Air, Gasoline & Paint
Pipes & Water
Solder Cans
ID of Hazardous Lead Paint in Homes
Paint Limit Reduced

Lead in children ages 1 to 5 years: Median and 95th percentile concentrations in blood, 1976-2010

Data: Centers for Disease Control and Prevention, National Center for Health Statistics and National Center for Environmental Health, National Health and Nutrition Examination Survey
America's Children and the Environment, Third Edition

Indicator 81
Federal Partners

• Consumer Product Safety Commission (CPSC)
• Centers for Disease Control and Prevention (CDC)
• U. S. Environmental Protection Agency (EPA)
• Department of Housing and Urban Development (HUD)
• Food and Drug Administration (FDA)
• Occupational Safety and Health Administration (OSHA)
Federal Partner Responsibilities

• Consumer Product Safety Commission
  o Mission is to reduce unreasonable risks of injury from consumer products (i.e., new paint)
  o Jurisdiction includes thousands of different consumer products that are entered into commerce for personal use

• Centers for Disease Control and Prevention
  o Define elevated blood lead level for children < 72 months old
  o Collect statistics on children’s blood lead levels
  o Provide grants to screen children blood lead, FY13 budget effectively ended these grant programs
  o Incorporates lead activities into their “Healthy Housing” program
Federal Partner Responsibilities (Continued)

• U.S. Environmental Protection Agency
  - Establish hazard standards for lead: in situ paint, dust, and soil (i.e. legacy or existing paint)
  - Regulate lead abatement, risk assessment, and inspection
  - Regulate Renovation, Repair and Painting activities in target housing and child-occupied facilities, and evaluate public and commercial buildings for RRP regulation
  - Require information disclosure of lead-based paint in real estate transactions (with HUD)
  - Implement public education activities
Federal Partner Responsibilities

• Department of Housing and Urban Development
  • Regulate and implement lead-based paint activities in Federally assisted and insured housing
  • Provide grants for lead work in low-income housing
  • Regulate real estate information disclosure standards (with EPA)

• Food and Drug Administration
  • Protect public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, our nation’s food supply, cosmetics, and products that emit radiation (i.e. lead in cans)

• Occupational Safety and Health Administration
  • Assure safe and healthful working conditions by setting and enforcing standards and by providing training, outreach and assistance (i.e., workers exposure)
Federal Partner Coordination

• Healthy Homes Conferences

• National Lead Information Center (EPA & HUD)

• Joint efforts are carried out for specific activities
  o National Lead Poisoning Prevention Week (EPA, HUD and CDC)
  o Public Information Collection Requests (EPA and HUD)
  o Information Sharing/Data Collection in support of rulemaking (EPA and a variety of Federal Partners)

• President's Task Force on Environmental Health Risks and Safety Risks to Children (link)
Components of U.S. Regulations

- Enabling legislation (U.S. Congress) authorizes Federal agencies to develop regulations

- Effective regulations involve:
  - Supporting data
    - Health hazard evaluation/Risk assessment
    - Industry and market research
    - Cost-benefit analysis
  - Scientific review/peer review
  - Clear requirements (i.e., drafting precision)
  - Compliance and enforcement mechanisms
  - Community engagement (public and regulated groups)
Legislative History:
New Paint (Sold to Consumers/On Consumer Products)

- **1971** - Lead-Based Paint Poisoning Prevention Act (LBPPPA) Pub. L. 91-695, Prohibition against future use of lead-based paint in Federally funded project

- **1972** - U.S. Food and Drug Administration (FDA) banned from commerce under Section 2(q)(1)(b) of the Federal Hazardous Substances Act (FHSA), any paint or similar surface coating with a lead content that exceeded 0.5% total wt of dried paint film

- **1976 (effective 1977)** - Lead-based paint was defined under the LBPPPA as any paint containing more than 0.06 percent (600 ppm) lead
Legislative History:
New Paint (Sold to Consumers/On Consumer Products)

- **1977 (effective 1978)** - As a result of the LBPPPA, CPSC reduced the limit of lead allowed in paint to 0.06 percent (600 ppm) under the Consumer Product Safety Act (CPSA)

- **During 2007 and 2008** the CPSC conducted many recalls because of excessive lead in the paint and substrate of toys and children’s products

- **2008 (effective 2009)** - Section 101 of the Consumer Product Safety Improvement Act of 2008, Pub. L. 110-314, (CPSIA) progressively reduced lead in paint from 0.06 percent (600 ppm) to 0.009 percent (90 ppm) in the paint and substrate of toys and children's products
Paint and Painted Products Covered by CPSC Regulations

- Applies to products that are customarily produced or distributed for sale to or for use, consumption, or enjoyment of consumers in or around a household, in schools, or in recreation and where consumers will have direct access to the painted surface
  - Paint and similar surface-coating materials for consumer use (e.g., decorative paint for houses)
    - Toys and other articles intended for use by children that bear “lead-containing paint”
      - Certain furniture articles for consumer use that bear “lead-containing paint”
        - Excludes coatings on motor vehicles, boats, industrial and agricultural uses
Key Definitions in CPSC Regulations

- Paint and other similar surface-coating materials means fluid, semi-fluid, or other materials, which change to a solid film.

- Lead content is calculated (as lead metal) by the weight of the total nonvolatile content of the paint or the weight of the dried paint film.

- A children’s product is defined as a consumer product designed or intended primarily for children 12 years of age or younger.
Implementation of CPSC Regulations

• In 1978, the regulations allowed manufacturers to phase out their existing paint stock

• In 2008, CPISA phase out was not authorized

• Companies are not required to secure a license or register their products. Instead, companies are required to:
  
  o Self-certify they meet requirements based on results of lab tests of lead content in their product
  
  o Test their paint periodically based on a reasonable testing program
  
  o Re-certify and re-test if any material change (e.g. pigment supplier has changed) to the product has been made
CPSC Testing and Inspection

• Samples must be tested by a laboratory.
  o Childrens products: CPSC-accepted 3rd party lab
  o General Use Products: can be non CPSC-accepted lab

• Companies may be subject to inspection by the government
  o If at any time they fail to meet the requirements, the company is subject to a fine or even seizure of the products
Exemptions to CPSC Regulations

• Certain lead-paint containing products are exempt but require labeling:
  o Agricultural and industrial equipment refinish coatings
  o Industrial (and commercial) building and equipment maintenance coatings
  o Traffic and safety marking coatings
  o Graphic art coatings
  o Touch-up coatings for agricultural equipment, lawn and garden equipment, and appliances
  o Catalyzed coatings marketed solely for use on radio-controlled model powered aircraft

• Some exempt products do not require labeling, includes mirrors (furniture articles), artists paint, metal furniture bearing factory applied coating (not children’s furniture)
Exemption Labeling Requirements

Exempt lead-paint containing products must be labeled:

• “Warning”
• “Contains Lead. Dried Film of This Paint May Be Harmful If Eaten or Chewed”
• Application prohibitions
• Keep out of reach of children
Legislative History:
Existing (Legacy/In Situ) Paint

• 1992 - The Residential Lead-Based Paint Hazard Reduction Act was enacted as Title X of the Housing and Community Development Act of 1992

• Title X added Title IV to the Toxic Substances Control Act (TSCA)
  • Title X assigns responsibilities to Federal Agencies with the overall goal of developing a “…national strategy to build the infrastructure necessary to eliminate lead-based paint hazards in all housing as expeditiously as possible.”
  • Clearly defined roles avoid duplicative efforts and ensure coordination among Federal agencies/departments
Two Primary EPA Regulatory Programs

- Lead Paint Abatement Program (1996) - meant to permanently eliminate lead-based paint hazards in housing and child-occupied facilities

- Renovation, Repair and Painting (2008) - meant to minimize creation of lead-based paint hazards during renovation and remodeling activities in housing and child-occupied facilities
Lead Abatement Program (1996)

- Administered by EPA except in areas where States, Tribes and Territories are authorized by EPA

- Abatement is not required – requires only that when done the activity must be done by trained and certified firms & individuals doing the work
  
  - Training of abatement workers must be conducted by EPA-accredited training providers (EPA developed model training courses)
  
  - Abatement activities must be conducted according to prescribed work practice standards, with clearance testing at job completion
Residential Lead Dust Hazard and Clearance Standards (2001)

• EPA issued rule establishing hazard standards (numeric and qualitative) for lead in paint, dust, and soil

• Not independently enforceable, but used to identify and prioritize where action is appropriate to address lead-based paint hazards (see RRP)
Renovation, Repair & Painting Rule (RRP, 2008)

- EPA administered except in authorized States, Tribal areas and Territories
- Regulates all jobs that disturb lead-based paint above de minimus levels in pre-1978 housing or child-occupied facilities
- Firms performing RRP jobs in pre-1978 housing or child-occupied facilities must be certified and use Certified Renovators (workers)
- Renovators must be trained and certified by EPA- accredited training provider (EPA developed model courses)
- Certified renovators must provide on-the-job training to other workers
- “Lead-safe” work practices must be followed during the project, including “cleaning verification” at project completion
Testing of Lead in Paint, Dust and Soil

• Law requires use of EPA-recognized labs to test all collected samples (abatement and RRP)

• National Lead Laboratory Accreditation Program (NLLAP)
  o EPA recognizes organizations that accredit laboratories for the analysis of lead in paint, dust and soil
  o Criteria include ISO/IEC 17025:2005(E), EPA’s Laboratory Quality System Reqs (V3), lab proficiency testing under the Environmental Lead Proficiency Analytical Testing (ELPAT) program
  o In the U.S. there are currently 125 accredited labs
Summary

- U.S. children blood lead levels have decreased since the 1970s
- The decline can be attributed to legislation and regulation enacted over the last 35 years to control lead exposure
- Each Federal agency has a defined role in reducing lead-based paint hazards
- Finally, adverse health effects of exposure to lead-based paint continue to occur and require ongoing regulatory action to prevent
U.S. EPA,
Office of International and Tribal Affairs
Angela Bandemehr
Tel: (202) 564-1427
Email: bandemehr.angela@epa.gov

U.S. Consumer Product Safety Commission
www.cpsc.gov