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United States Environmental Protection Agency

Lead Bulletin

Office of Enforcement & Compliance Assurance

This bulletin provides an overview and selected highlights of activities conducted by OECA and its partners to address actual and potential exposures to lead that put children and others at serious risk of harm.

EPA Reduces Lead Exposure through Compliance Assurance

Exposure to lead in environmental media–soil, water, air, and in paint - can cause serious health problems. Those most at risk are children under the age of six, who may suffer severe neurologic impacts including learning disabilities, behavioral issues and hearing loss. Lead-based paint is the single largest cause of childhood lead poisoning. Other typical sources of lead exposure include lead in drinking water, lead in soil from certain industrial operations, and lead in air emissions from certain commercial sources. See "Effects of Lead on Human Health," below.

The Environmental Protection Agency (EPA or Agency), Office of Enforcement and Compliance Assurance (OECA) and its partners use multiple statutory and regulatory authorities to prevent or reduce exposure to lead in environmental media. OECA leads and supports a variety of compliance assurance activities conducted by EPA Regions, and by states, tribes, and territories implementing EPA-authorized programs. Also, OECA collaborates with states, tribes, other federal agencies, communities, governmental and non-governmental stakeholders, and industry to address lead contamination. OECA's activities are part of the Agency-wide effort to address lead in the environment.

The primary goal of compliance assurance activities is to protect public health and the environment. Therefore, these activities aim to promote compliance with environmental requirements, ensure that violators are held accountable for noncompliance, deter would-be violators, and promote a level playing-field for entities that comply with the requirements.

Compliance Assurance

Compliance assurance mean EPA's array of tools and activities to promote compliance, including:

- Compliance assistance
- Compliance monitoring
- Enforcement
- Capacity-building with partners
- Grants
- Policy development
- Data and tool development

For more information about EPA's compliance assurance activities, see https://www.epa.gov/enforcement/enforcing-lead-laws-and-regulations

Lead-based Paint

Exposure to lead from deteriorated or disturbed lead-based paint (LBP) is the single largest cause of childhood lead poisoning. EPA has promulgated LBP rules pursuant to the Toxic Substances Control Act (TSCA) and the Residential Lead-based Paint Hazard Reduction Act. Those rules require lead-safe renovations and abatements, pre-renovation education, and disclosure of information about LBP and LBP hazards. EPA enforces LBP violations through civil administrative actions, and the U.S. Department of Justice (DOJ) takes civil and criminal judicial actions on EPA's behalf.

In addition, OECA supports states, tribes, and territories on the implementation and enforcement of EPA-authorized LBP programs. OECA's TSCA Substances Compliance Monitoring Cooperative Agreement Grants build environmental partnerships with states/tribes/territories to strengthen their ability to address environmental and public health threats from toxic substances such as lead-based paint.

In 2018, EPA awarded $1.748 million in grants supporting programs that reduce risks from exposure to lead-based paint. Also, EPA, in partnership with the Associated General Contractors of America (AGC), provides compliance assistance information about environmental rules, including information on the proper handling of lead-based paint by the construction industry. This information can be found online at the Construction Industry Compliance Assistance Center, and is provided free of charge by the National Center for Manufacturing Sciences and AGC. The Construction Industry Compliance Assistance Center includes information and reminders about training and certification required for firms and renovators under the lead Renovation, Repair, and Painting (RRP) rule.

OECA announced its 2018 enforcement actions to ensure that renovation contractors, landlords, property managers, and other entities comply with the lead-based paint rules. The enforcement actions addressed civil and criminal violations. For more information, see EPA's Lead-based Paint Enforcement Helps Protect Children and Vulnerable Communities.

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Lead at Superfund Sites

Lead is one of the most common contaminants found at Superfund sites across the country. The Superfund enforcement program identifies the parties responsible for lead contamination and uses Superfund authority to compel them to clean it up. Cleanups are often complex, can take years to complete, and generally involve multiple enforcement actions to accomplish.

In FY 2018, the Superfund enforcement program entered into or issued over 30 enforcement actions at sites with lead contamination in soils, water, demolition debris, tailings piles and other situations. These are in addition to the ongoing Superfund actions initiated in previous years that are still ongoing to address lead contamination.

Superfund enforcement actions have compelled the removal of lead contaminated soils in thousands of residential yards, greatly reducing the lead exposures of those playing, working and gardening in those yards.

Highlights of 2018 Enforcement Actions

- **Big River Mine Tailings Site**—At the Big River Mine Tailings Site in Missouri, the Doe Run company signed a consent decree to address lead contamination in over 4,000 residential yards. (*More …)*

Lead in Hazardous Wastes

The Resource Conservation and Recovery Act (RCRA) works to *prevent* lead contamination through requiring the careful management of wastes containing lead. Most facilities that treat, store, or dispose of hazardous wastes, including hazardous wastes that exceed the regulatory

limit for lead, must have and comply with a permit. Forty-eight states and two territories are authorized to implement their own hazardous waste management program in lieu of the federal program. While EPA maintains independent enforcement authority, the states with authorized RCRA programs are primarily responsible for issuing and enforcing hazardous waste management permits, including those that address waste hazardous for lead. EPA implements the RCRA hazardous waste program throughout Indian country and in those states and territories that are not authorized.

RCRA also addresses the *clean-up* of lead contamination through its corrective action program. RCRA corrective action obligations may be implemented through permits and administrative orders. Since 1984, EPA has issued hundreds of corrective action orders to facilities that treat, store or dispose of hazardous wastes, many of which address lead contamination. In some cases (e.g., at some smelters and refineries), lead was the primary contaminant or risk-driver addressed by the order. Similar to Superfund cleanups, corrective action at RCRA facilities can be complex and take several years to complete. Forty-four states and one territory are also authorized to implement the hazardous waste corrective action program in lieu of the federal program. EPA implements the RCRA cleanup program in Indian country and states and territories that are not authorized. In states and territories with authorized programs, EPA oversees and coordinates with the authorized state/territory and maintains independent enforcement authority.

Highlights of 2018 Enforcement Actions

- **Waste Management of Iowa, Inc. (WM or Respondent)**—WM entered into a Consent Agreement and Final Order under the Resource Conservation and Recovery Act in July 2018. WM is the owner of a building located in South Sioux City, Iowa, which is the location of an illegal treatment, storage and disposal facility. (*More …)*

Lead in Drinking Water

Lead in drinking water presents unique challenges because it leaches into water as it moves through distribution systems and on premise plumbing. EPA estimates drinking water can make up to 20 percent or more of a person's total exposure to lead. However, sensitive subpopulations may face higher risks. For example, infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead if drinking water is contaminated.

EPA promulgated the Lead and Copper Rule (LCR or Rule) in 1991 to protect public health by reducing lead in drinking water. Because lead contamination of drinking water often results from corrosion of the plumbing materials, the LCR requires water systems to control the corrosivity of the water they serve. The regulation also requires systems to collect tap samples from sites served by the system that are more likely to have plumbing materials containing lead. If more than

10 percent of tap water samples exceed the lead action level of 15 parts per billion, then water systems are required to take additional actions. While the long-term LCR revisions and the lead-free rulemaking are underway, EPA continues to work with states, territories, and tribes to help address lead in drinking water.

Drinking Water National Compliance Initiative

EPA is considering a Safe Drinking Water Act (SDWA) public water system (PWS) National Compliance Initiative (NCI). As part of this effort, EPA will be providing opportunities for early, ongoing, and meaningful input in the process to states, tribes, and territories as we collaborate on development of an implementation strategy for a SDWA PWS NCI. This proposal will explore ways to reduce causes of drinking water noncompliance at community water systems and improve public health protection at those systems most at risk. In September 2018, EPA kicked off a national workgroup to coordinate this effort.

Lead in Air Emissions

Air emissions that contain lead, or chemicals that contribute to the deterioration of lead in paint, present risks of lead exposure to the public and to children in particular. Enforcement concerning lead in the air is conducted under the Clean Air Act (CAA), which regulates stationary and mobile sources that emit air pollution. The act requires major stationary sources, such as manufacturers, processors, refiners, and utilities, to obtain operating permits and install pollution control equipment and to meet specific emissions limitations.

The major sources of lead emissions to the air today are ore and metals processing and leaded aviation gasoline. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Highlights of 2018 Enforcement Actions

- **Indiana Harbor Coke Plant**—On January 25, 2018, the United States announced a proposed Consent Decree with SunCoke Energy, Indiana Harbor Coke, and Cokenergy to resolve alleged Clean Air Act violations relating to excess emissions of coke oven gases from their coke plant in East Chicago, Indiana. (*More …)*

- **WRB Refining LP and Phillips 66 Company**—On August 10, 2018, the United States, DOJ on EPA's behalf, filed a complaint and lodged a proposed Consent Decree resolving WRB Refining LP and Phillips 66 Company's (P66's) violations under the Clean Air Act. (*More …)*

Lead at Federal Facilities

Federal facilities comprise one of the largest and most diverse sectors in the nation, have a significant environmental footprint, and can play a large role in reducing exposure to lead from lead-based paint, water, soil, and air emissions at their facilities and in neighboring communities. The EPA works with federal facilities to reduce lead risks and hold federal agencies accountable to the same standard of environmental compliance as other members of the regulated community.

Through outreach to the Department of Defense (DOD) and civilian federal agencies, EPA collaborates with federal agencies to identify how to improve compliance with lead-related environmental regulations to address children's health. EPA encourages federal agencies to take steps to reduce and abate lead exposure, including working with private entities on federal property that may be contracted to perform work or operate and maintain federal housing to ensure that that those private entities take steps to reduce and abate lead exposure and comply with federal lead requirements.

Lead on Indian and Tribal Lands

Federally-recognized Indian tribes are eligible, but not required, to administer, with EPA approval, the permitting, compliance monitoring, and enforcement components of a number of Agency programs that are directly related to reducing exposure to lead from lead-based paint, water, soils, and air emissions from facilities located in Indian country. Tribes implementing lead-related programs include the Navajo Nation, which has authority for the SDWA's public water system program, and the Cherokee Nation, Boise Forte Band of the Minnesota Chippewa Tribe, Lower Sioux Indian Community, and Upper Sioux Community , which have authority for TSCA's lead paint abatement program. In almost all other parts of Indian country, EPA is responsible for lead-related program implementation including inspection and enforcement activities and works with tribes to reduce lead risks and ensure compliance. EPA direct implementation in Indian country is undertaken consistent with the relevant lead-related statutes and regulations and both the Agency's tribal and non-tribal specific policies and guidance.

More information on tribes with authorized programs is available at https://www.epa.gov/tribal/tribes-approved-treatment-state-tas. Information on EPA's direct implementation responsibilities and activities is available at https://www.epa.gov/tribal/direct-implementation-indian-country. Finally, information on EPA's compliance monitoring and enforcement in Indian country is available at https://www.epa.gov/tribal/compliance-enforcement-indian-country.

Effects of Lead on Human Health

Lead is a naturally occurring element that can be harmful to humans, particularly children, when ingested or inhaled. Lead can be found in all parts of our environment–air, soil, water, sediments, and inside our homes.

Lead exposure affects the nervous system and can cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. Children six years old and younger are most at risk. If not detected early, children with high levels of lead in their bodies can suffer from:

- Damage to the brain and nervous system
- Behavior and learning problems, such as hyperactivity
- Slowed growth
- Hearing problems
- Headaches
- Anemia

In rare cases, acute lead poisoning from ingestion of lead can lead to seizures, coma, and even death.

Lead can accumulate in our bodies over time, where it is stored in bones along with calcium. During pregnancy, lead is released from bones as maternal calcium is used to help form the bones of the fetus. This is particularly true if a woman does not have enough dietary calcium. Lead can also easily be circulated from the mother's blood stream through the placenta to the fetus. Mothers with high levels of lead in their bodies can expose their developing fetuses, resulting in serious and developmental problems including:

- Miscarriages,
- Premature births or low birth weight,
- Brain damage, decreased mental abilities, and learning difficulties, and/or
- Reduced growth in young children.

Lead exposure affects the nervous system and can cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death.

2018 Enforcement Actions

Lead Based Paint

Magnolia Homes Settles Alleged Violations Aired on "Fixer Upper" TV Show

Magnolia Waco Properties (TX), of the HGTV network's Fixer Upper national reality television show, settled alleged RRP Rule violations that were broadcast on the show. As part of that settlement, Magnolia agreed to spend $160,000 to abate LBP paint hazards in homes in Waco, Texas, and to demonstrate how to comply with the RRP Rule and widely disseminate information about lead hazards and RRP requirements through its television, internet, and social media platforms. See the Consent Agreement with Magnolia Waco Properties for more information.

Proposed Settlement with NYC Public Housing Authority to Reduce Lead Exposure Risks for Thousands

The New York City Housing Authority (NYCHA), the nation's largest public housing authority, agreed to settle alleged widespread lead-based paint and housing violations under a simultaneously filed Complaint and proposed Consent Decree. The proposed Consent Decree, which is subject to public comment and court approval, affects approximately 175,000 apartments and 400,000 residents. The proposed settlement requires the appointment of a monitor with authority to ensure that NYCHA complies with lead-based paint and other requirements. Also, the proposed settlement requires New York City to provide at least $1.2 billion in capital funding to NYCHA to address infrastructure problems. The Complaint alleged longstanding and ongoing violations of regulations to protect children from lead-based paint. At least 19 children associated with NYCHA apartments were diagnosed as having elevated blood-lead levels–a sign of lead poisoning, and thousands more were put at risk.

Renovation Firm Pleads Guilty for Failing to Follow Lead-Safe Work Practices

In May 2018, Bitner Brothers Construction Co., Inc. (Bitner Brothers) of Carlisle, Pennsylvania, entered a two count guilty plea for violating lead-safe work practice requirements. In 2017, Bitner Brothers had conducted work inside two apartments in Harrisburg, Pennsylvania while families with small children were present. The company failed to comply with the requirement that power grinding equipment have a shroud or containment system equipped with a HEPA vacuum during the renovation. As part of the plea agreement, the defendant company, and its President and owner, Charles H. Bitner, Jr., were directed not to undertake certain new work related to lead-based paint for the probation period. Bitner Brothers was sentenced to a $10,000 fine, two-year probation, and a special assessment of $125.

Owner of Environmental Training Company to Serve Prison Time for Falsely Certifying Lead Abatement Course Completion

In December 2017, Stephen Craig of Connecticut was sentenced to six months of imprisonment, followed by three years of supervised release, for falsely certifying the completion of a lead abatement course. The court also ordered Craig to pay a $20,000 fine. Craig owned Boston Lead Company, LLC, d/b/a Environmental Training and Assessment, and was the training manager and a primary instructor for courses. See Department of Justice press release on sentencing at https://www.justice.gov/usao-ct/pr/environmental-training-company-owner-serve-prison-time-falsely-certifying-lead-abatement

Lead at Superfund Sites

Big River Mine Tailings Site

At the Big River Mine Tailings Site in Missouri, the Doe Run company signed a consent decree to address lead contamination in over 4,000 residential yards. The Big River Site is located in a former mining region known as the "Old Lead Belt." The site is approximately 110 square miles and includes residential and recreational areas. Since EPA and Doe Run have been implementing response actions at the site, over 1,520 residential properties have had lead contaminated soil removed from their yards and over 10.9 million cubic yards of mine waste on approximately 2,500 acres have been cleaned up. For more information visit the Big River Mine Tailing Superfund site profile website.

Lead in Hazardous Wastes

Waste Management of Iowa, Inc. (WM or Respondent)

WM entered into a Consent Agreement and Final Order under the Resource Conservation and Recovery Act in July 2018. WM is the owner of a building in South Sioux City, Iowa, which is the location of an illegal treatment, storage, and disposal facility. WM leased its building to Siouxland PC and Electronics Recycling LLC (aka Recycletronics) and Aaron Rochester. During the course of a multi-year investigation, EPA discovered that Recycletronics and Mr. Rochester failed to meet the conditional exclusion to the definition of solid waste for management of cathode ray tubes (CRTs). Recycletronics and Aaron Rochester created five illegal storage facilities in Iowa and two in Nebraska. CRTs contain lead, a RCRA hazardous waste. Recycletronics and Aaron Rochester agreed to clean up the sites. EPA estimates approximately 10.1 million pounds of waste will be cleaned up across the seven sites, under that agreement. Under this CAFO, WM will clean up one of those seven sites (its South Sioux City property), containing approximately 768,000 pounds of waste.

Lead in Air Emissions

Indiana Harbor Coke Plant

On January 25, 2018, the United States, DOJ on EPA's behalf, announced, a proposed Consent Decree with SunCoke Energy, Indiana Harbor Coke, and Cokenergy to resolve alleged Clean Air Act violations relating to excess emissions of coke oven gases from their coke plant in East Chicago, Indiana. Under the proposed agreement, the companies will implement steps expected to reduce annual hazardous air emissions from coke ovens, including lead. In addition, under the proposed settlement the companies will spend $250,000 on a lead abatement project in the East Chicago area to reduce lead hazards in schools, day-care centers, and other buildings with priority given to properties with children and pregnant women. The Indiana Department of Environmental Management participated in this action. See Consent Decree at https://www.justice.gov/enrd/consent-decree/file/1028836/download.

WRB Refining LP and Phillips 66 Company

On August 10, 2018, the United States, DOJ on EPA's behalf, filed a complaint and lodged a proposed Consent Decree resolving WRB Refining LP and Phillips 66 Company's (P66's) violations under the Clean Air Act. P66 owns and operates a petroleum refinery in Roxana, Madison County, Illinois. Under the proposed Consent Decree, P66 has agreed to pay a civil penalty of $475,000 and perform several actions related to the Clean Air Act. In addition, P66 will perform lead hazard abatement projects, valued at $500,000, in low-income residential properties and private day-care centers to reduce childhood lead poisoning in communities with high percentages of lead-poisoned children in counties near the Refinery. The State of Illinois participated in this action. See notice of lodging at https://www.justice.gov/enrd/consent-decree/file/1087616/download.