

# STATE OF CONNECTICUT

## DEPARTMENT OF PUBLIC HEALTH




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Environmental Health and Drinking Water Branch

EHDW Circular Letter #2023-18

To: Local Directors of Health

From: Lori J. Mathieu, Public Health Branch Chief 

Date: June 23, 2023

Subject: Release of Lead-Based Paint Chips from Bridge Structures

The purpose of this circular letter is to reinforce lead safety measures and precautions in response to the attached Connecticut Department of Transportation (DOT) safety alert sent to municipalities on February 17, 2023.

Following an unusually rapid temperature change in February 2023, steel bridge structures across the state experienced a sudden, unexpected release of lead-based paint chips. DOT subsequently inspected all DOT-owned bridges statewide and has determined that lead paint is cracking and falling off dozens of bridges. DOT swiftly deployed contractors to safely clean up the lead paint chips and is coordinating with the Department and Energy and Environmental Protection on cleanup efforts.

Inspection and cleanup of affected bridges near public parks and drinking water supply watersheds were prioritized. DOT is continuing to periodically inspect affected bridges following initial cleanup to monitor for any additional releases of lead paint. Work is now underway to safely scrape remaining lead paint from affected bridge surfaces and repaint those structures; however, some bridges may continue to periodically shed lead paint until this work is complete.

As stated in DOT's safety alert, residents are advised to follow these practices to minimize their exposure to lead:

- Do not handle or move the paint chips.
- Avoid walking through or disturbing the paint chips.
- Pedestrians who encounter areas of paint release on roadway travel surfaces should limit their time in these areas as traffic may crush the paint chips and create lead dust.



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Although DOT is prioritizing cleanup efforts in areas that are accessible to the public, there may be impacted bridge structures in your town(s) that are not the responsibility of DOT to address. If there are impacted bridge structures in locations where people are known to congregate or use heavily (for example used by transient populations, popular fishing area, walking route by children to/from school), it is especially important for the precautionary messages listed above to be communicated and followed.

Because a number of affected bridges are proximal to public drinking water supplies, the Department is contacting public water systems separately to notify them of this hazard. If you are aware of an impacted bridge structure in a publicly accessible area, you are advised to notify the appropriate municipal officials. This will help ensure that the bridge owner is aware of the condition so that cleanup efforts can be prioritized. It is important to note that many bridges may continue to shed paint until work to safely remove the paint is complete. Vigilance is important.

Exposure to lead is a known health concern, however the presence of paint chips on the ground poses little danger to health provided that the common-sense practices listed above are followed. CT DPH's website provides more information about the hazards of exposure to lead.

<https://portal.ct.gov/dph/Environmental-Health/Lead-Poisoning-Prevention-and-Control/Lead-Poisoning-Prevention-and-Control-Program>

c: Lisa Michelle Morrissey, Deputy Commissioner



# STATE OF CONNECTICUT

## DEPARTMENT OF TRANSPORTATION

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## Frequently Asked Questions: Bridge Paint Failure Response Actions

### How did the failed bridge paint response start?

In mid-February 2023, CT Department of Transportation inspectors reported seeing paint chips deposited beneath an elevated section of I-84 in Hartford. A comprehensive look at all of DOT's painted steel bridges was completed over the ensuing days. Fallen paint chips were observed state-wide at 281 bridge sites. Preliminary testing confirmed that the paint chips contained lead. On February 17, 2023, DOT Commissioner Garrett Eucalitto declared a statewide emergency condition that needed immediate attention to ensure the safety of the public.

### What was DOT's immediate response?

Upon the first reports of fallen paint chips in Hartford, DOT mobilized inspectors to inspect all DOT-owned painted steel bridges. DOT notified DEEP and deployed a licensed spill contractor to safely collect the paint chips from the ground surface. More spill contractor crews were mobilized statewide as the list of affected sites grew. Cleanup sites were prioritized based on the amount of potential direct exposure to the public. Chief elected officials of each municipality were notified of the failed paint phenomena and DOT's clean-up efforts.

### Are the paint chips dangerous?

Testing has confirmed that the chips from most of the bridge sites were from lead-based paint. Lead is known to cause damage to the brain and nervous system in children. When children ingest lead it may cause slowed growth and development and the child may have learning and behavioral problems. Adults who are exposed to high amounts of lead may develop high blood pressure, kidney problems, and reproductive issues. It is important to note that lead is harmful only when it gets into the body; and avoiding the lead paint chips from the bridges will ensure that lead does not get into the body. For more information on lead poisoning, please visit CT DPH's [Lead Fact Sheet](#) and [Lead Primary Prevention Campaign \(ct.gov\)](#)

### How are the paint chips being collected?

The spill contractors use a variety of means to collect the chips from the ground surface and shallow water bodies. The methods being used include hand picking, backpack-vacuums equipped with HEPA filters, and large vacuum trucks also equipped with HEPA filters. Air monitoring is conducted to verify there are no exposures to the public or the cleanup personnel during the chip collection.

### When will the paint-chip clean-ups be all completed?

The cleanups are expected to continue at least through the end of May. Several bridge sites will have cleanups performed multiple times where the bridge continues to shed paint.

## **FAQ: Bridge Paint Failure Response Actions (continued)**

### **What caused the paint chips to fall from the bridges?**

The most likely cause is thermal shock resulting from the extreme temperature change experienced in the state this winter, particularly on February 4<sup>th</sup>-5<sup>th</sup> when temperatures ranged from sub-zero to the mid 50's (°F) in less than twenty-four hours in many areas. Bridge materials expand and contract with temperature. In the cases of falling paint chips, older paint that had become brittle over time was unable to stay adhered to the underlying steel surfaces that were expanding and contracting faster than normal in response to the unusual rate of temperature change.

### **Has this happened elsewhere?**

This phenomenon was also experienced to various degrees in surrounding states. Isolated instances have been addressed on a case-by-case basis in the past, but the number and expanse of affected bridges is unprecedented in Connecticut. Other Northeast and Midwest states reported the same unusual amount of bridge sites affected this winter.

### **What is being done to address loose paint that has not fallen from the bridges?**

DOT has hired specialty contractors to carefully remove and collect loose paint from the bridges' steel surfaces. The contractors are required to establish defined work areas where entry is limited only to those performing the work. The contractors must also implement controls to prevent the spread of lead dust and debris beyond the defined work area. Warning signs for lead work are posted at the work areas.

Removal of loose paint is performed via a combination of hand scraping with paint collection into an underlying tarp and other mechanical means (grinders/sanders) used with HEPA vacuum filters. The contractors are not permitted to use sandblasting or other abrasive blast cleaning methods.

Any time lead contamination is discovered outside of the defined work area, all work stops in the work area until the cause is eliminated and the debris is cleaned up. Visual inspections of the contractors' work are performed to ensure completeness and adequacy. Upon completion of each site, the spill contractors performing ground surface cleanups will return to ensure any paint that came loose during the paint removal is properly collected.

The work to collect loose paint from painted steel bridges is expected to continue throughout the year as the Department establishes a program for arresting the remaining paint from coming off and repainting all impacted bridges in a systematic and prioritized manner.

### **What is being done about bridges not owned by DOT?**

There are hundreds of municipally owned painted steel bridges for which DOT inspects biannually under a federally funded program while other bridges are inspected by the municipality. DOT also administers several programs to assist municipalities with obtaining state or federal funding for transportation infrastructure. However, construction and maintenance of these municipal structures, including special inspections beyond the federally funded program, are ultimately the responsibility of the cities and towns who own them. Similarly, the responsibility for maintenance and inspections of any privately owned bridges generally belongs to the owner. DOT has advised municipalities of the unprecedented paint failure that occurred this winter and recommended that the local authorities review all municipally owned painted steel bridges and take any necessary remediation steps.



CONNECTICUT DEPARTMENT OF TRANSPORTATION

# ***SAFETY ALERT***

***FOR IMMEDIATE RELEASE***

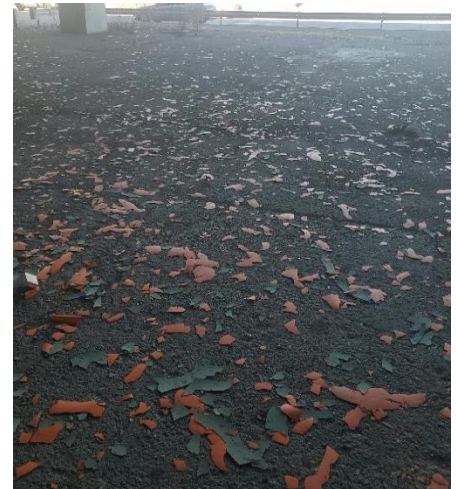
Safety Alert:  
SA-MED-021723

## **Bridge Structures Experiencing Sudden Release of Lead-Based Paint Chips**

Release Date: 02/17/23

Bridge structures state-wide have been experiencing a sudden, unexpected release of lead-based paint chips, which is believed to be related to the recent extreme swings in temperature. Although lead is a known health hazard, the existence of paint chips on the ground poses little danger to your health if a few common-sense practices are observed. Your goal is to reduce exposure and contain the hazard.

First, **do not handle or move the debris**. Cleanup efforts are already in progress and a larger state-wide mitigation plan is in development. Second, **avoid walking through or disturbing the debris**. Crushing the paint chips and tracking them to other locations on the soles of your shoes can increase the size of the contaminated area and increase your likelihood of exposure. Third, **when encountering areas of paint release on roadway travel surfaces, limit your time in areas where traffic is crushing paint chips** and possibly creating contaminated dust. Finally, take note of the location and the area of impact. Is it on the roadway, sidewalk, in a stream or river, or is it in a residential or school zone? **Record the information and inform your supervisor upon your return to your work facility.**



During the course of your normal duties, if you encounter areas that have been impacted by the sudden release of lead-based paint, following these few simple best-practices will either reduce or eliminate your chance of exposure to lead and help contain the hazardous material.

For more information about lead and its impact on health please visit:

<https://portal.ct.gov/DPH/Environmental-Health/Lead-Poisoning-Prevention-and-Control/About-Lead>

**Thank you for your support of CTDOT health and safety programs.  
Visit <http://www.ct.gov/dot/safetyconcern> to report an unsafe or unhealthy condition.**