

Changes coming to Cal/OSHA lead (Pb) regulations...

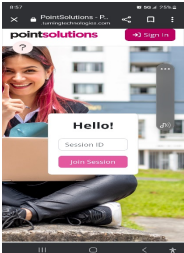
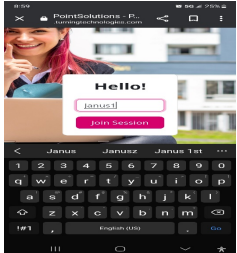
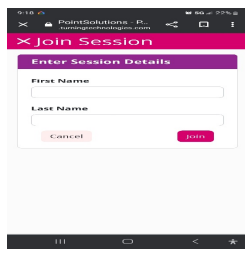
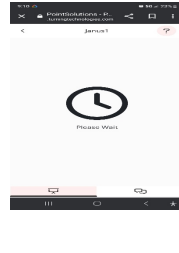
How to get into the game!

Win fabulous prizes - for those with the best answers!

TTPoll
does not
work well
on "EDGE"

It is best to
use
Chrome or
Safari
internet
browsers

<p>1. On computer or cell phone Go To www.ttpoll.com "pointsolutions" website will come up</p>	<p>2. Enter janus1 as the Session ID Then hit "Join Session"</p>	<p>3. Enter Your name <i>It doesn't have to be your real name - just one you're willing to admit to when you win a fabulous prize!</i> Then hit "Join"</p>	<p>4. You Are In! Wait for the game to start!</p>
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This is what
you want to
see

Or you might
see this entire
slide.

1

Changes coming to Cal/OSHA's Lead in Construction regulation Most recent version issued on 10-6-23

Presented By Michael C. Sharp

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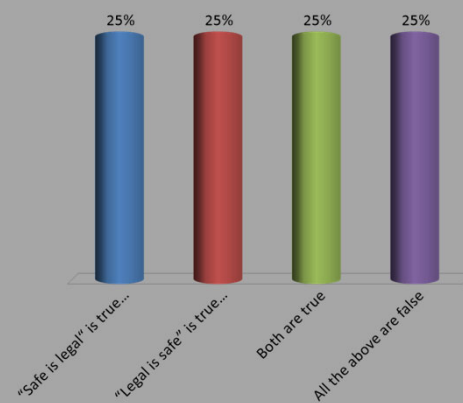
2

But first... a background knowledge check!

3

If it is safe, it is legal and, if it is legal, it is safe.

- A. "Safe is legal" is true, but legal is not necessarily safe.
- B. "Legal is safe" is true, but safe is not always legal.
- C. Both are true
- ✓ D. All the above are false



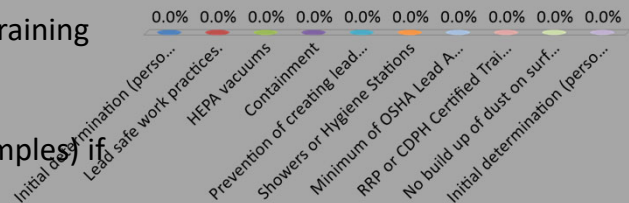
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4

Which of the following is required when conducting work with paint below 600 ppm?

Pick all that apply

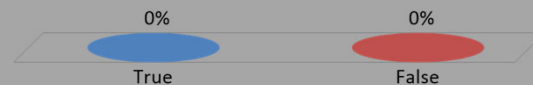
- A. Initial determination (personal air samples) for suits and respirators, when not conducting a trigger task.
- ✓ B. Lead safe work practices.
- ✓ C. HEPA vacuums
- ✓ D. Containment
- ✓ E. Prevention of creating lead hazards.
- F. Showers or hygiene stations
- ✓ G. Minimum of OSHA Lead Awareness Training
- H. RRP, or CDPH Certified Training
- ✓ I. No build up of dust on surfaces
- ✓ J. Initial determination (personal air samples) if conducting a trigger task.



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Lead-based ceramic tile glaze is still legal to be used in any type, or age, of facility.

- ✓ A. True
- B. False

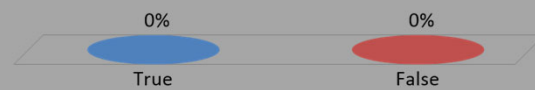


6

6

Lead-based powder coating for metal is still legal to be used in any type of facility, to this day.

- ✓ A. True
- B. False



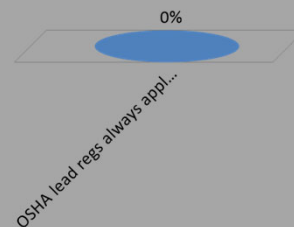
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7

Cal/OSHA Lead regulations **do not** apply for paints and coatings applied after what date?

- ✓ A. OSHA lead regs always apply, unless **bulk chip samples** of paint (or other materials) show lab results below “reportable” levels, regardless of age.

I am looking for 100% correct on this one!



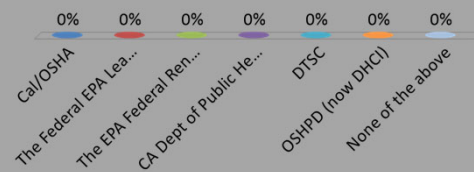
8

8

Lead-safe work practices are required in California,
by which of the following agencies?

(Pick all that apply)

- ✓ A. Cal/OSHA
- ✓ B. The Federal EPA lead abatement rules
- ✓ C. The Federal EPA Renovation, Repair and Painting Rule (RRP)
- ✓ D. CA Dept of Public Health
- E. DTSC
- F. OSHPD (now DHCI)
- G. None of the above



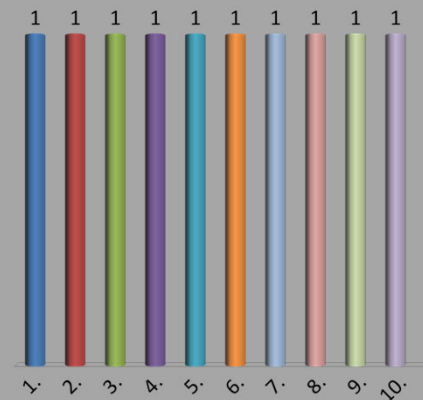
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9

Currently, what is added to a project when personal air samples are above the AL, for a single day for lead
(or personal samples have not yet been collected)?

(Pick all that apply)

- 1. Regulated-area signage
- 2. Protective suits and respirators
- 3. Clean change areas
- 4. Hand and face washing stations for lunchroom
- ✓ 5. Action level training (or higher)
- ✓ 6. Biological monitoring (for lead and zinc protoporphyrin)
- 7. Showers
- 8. Lead certification when in residential or public buildings
- 9. Lunchroom areas
- ✓ 10. More frequent air sampling (every six months at least)



10

Currently, what is added to a project when personal air samples are above the PEL for lead (or personal samples have not yet been collected)?

(Pick all that apply - added only by EXCEEDING the PEL)
(Don't choose items already included at the Action level)

- ✓ 1. Regulated area signage
- ✓ 2. Protective suits and respirators
- ✓ 3. Clean change areas
- ✓ 4. Hand and face washing stations for lunchroom
- 5. Action level training (or higher)
- 6. Biological monitoring (for lead and zinc protoporphyrin)
- ✓ 7. Showers
- ✓ 8. Lead certification when in residential, or public buildings
- ✓ 9. Lunchroom areas
- ✓ 10. More frequent air sampling (quarterly at least)



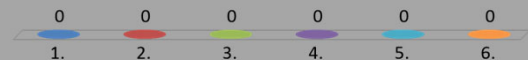
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TIME TO START LOOKING FORWARD

Cal/OSHA's current PEL is 50 $\mu\text{g}/\text{m}^3$ -
what will Cal/OSHA's PEL for Lead (Pb) be
when 8 CCR 1532.1 is revised?

(Either you already know, or it is a blind guess)

- 1. 0.5 $\mu\text{g}/\text{m}^3$ (of course!)
- 2. 2.3 $\mu\text{g}/\text{m}^3$ (maybe they match the higher level?)
- 3. 5.0 $\mu\text{g}/\text{m}^3$
- ✓ 4. 10 $\mu\text{g}/\text{m}^3$
- 5. 15 $\mu\text{g}/\text{m}^3$
- 6. 20 $\mu\text{g}/\text{m}^3$



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Cal/OSHA's current action level is 30 $\mu\text{g}/\text{m}^3$,
what will Cal/OSHA's action level for Lead (Pb)
be when 8 CCR 1532.1 is revised?

(Again, either you already know, or it is a blind guess)

1. 0.5 $\mu\text{g}/\text{m}^3$
- ✓ 2. 2 $\mu\text{g}/\text{m}^3$ (no way – that's below the reportable limit for Flame AA analysis!)
3. 3 $\mu\text{g}/\text{m}^3$
4. 5 $\mu\text{g}/\text{m}^3$
5. 8 $\mu\text{g}/\text{m}^3$
6. 10 $\mu\text{g}/\text{m}^3$ (same as PEL)



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Initial Blood Lead Testing

- Under the standard for inorganic lead in the construction industry, **initial blood lead testing** shall be provided to employees prior to assignment to work where exposure to lead is, or is likely to be, at or above the action level or, who conducts a trigger task.
- There is more to this – this is just a quick summary! There is ongoing blood level monitoring as well.
- There are some additional rules if exposures will be above the AL as well, and some exemptions.

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Initial blood lead testing exemptions

The first exception -

If the employee is not, and not reasonably expected to be, exposed to lead at, or above the action level for...

30 or more days in any 12 consecutive months, and,

... is not exposed on ANY SINGLE DAY above 10 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA, without regard to respirator use, then initial blood lead testing is not required to be provided.

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Initial Blood Lead Testing Exemptions

The second exception:

If the employee is not, and is not reasonably expected to be, exposed to lead at or above the action level for...

15 or more days, in any 12 consecutive months, and

is not exposed on ANY DAY above 20 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA, without regard to respirator use, then initial blood lead testing is not required to be provided.

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Initial Blood Lead Testing Exemptions

The **third exception** is if the employee had a blood lead test in the preceding two months, then **initial blood lead testing is not required** to be provided.

All these exemptions are better suited to industrial work, not construction work.

Remember – the number of days of exposure are calculated over a 12-month period, but the initial blood lead testing is “prior to assignment.”

That can mean - each individual project for contractors!

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Initial Blood Lead Testing

However, and oh, by the way...

Initial blood lead testing shall also be **provided to employees, as interim protection, unless a negative initial determination has been made prior to performing trigger tasks** described in subsection (d)(2) of the lead standard.

More than just air sampling goes into negative initial determinations!!!!

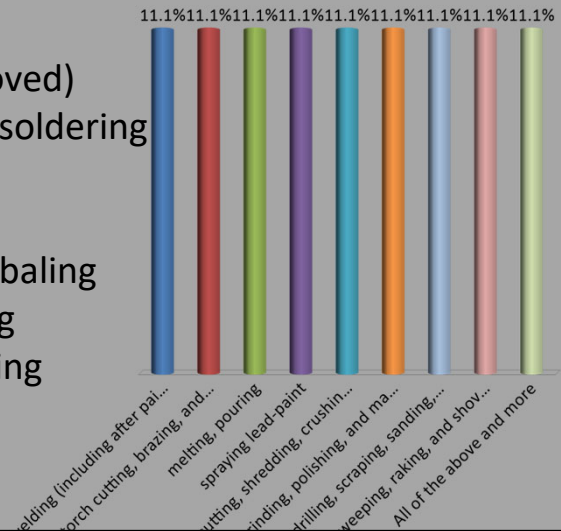
- level of lead in materials
- work practices
- tasks performed
- engineering controls
- tools used
- **training level of workers** performing work, and those relying on the material's initial negative assessment, **must be the same.**

18

Which of the following will be considered altering, or disturbing lead?

(There is only one correct answer on this slide!)

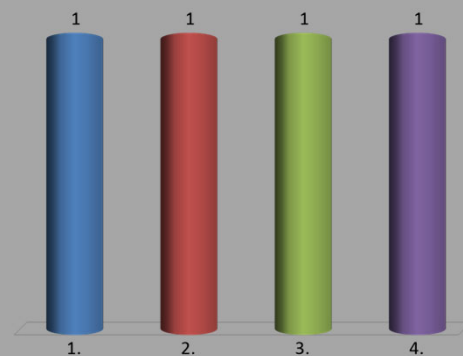
- A. welding (even after paint is removed)
- B. torch cutting, brazing, and torch soldering
- C. melting, pouring
- D. spraying lead paint
- E. cutting, shredding, crushing and baling
- F. grinding, polishing and machining
- G. drilling, scraping, sanding, abrading
- H. sweeping, raking and shoveling
- ✓ I. All of the above, and more



19

Three are true, which is false about lead-related tasks (Trigger Tasks)?

- 1. Tasks are being revised by Cal/OSHA in the new 1532.1
- 2. Applies to tasks conducted on paints and coatings with any detectable level of lead.
- 3. Tasks determine which respirator must be used by workers, until a negative initial exposure result is established (or fails to establish it).
- ✓ 4. **Listed Tasks include large scale demolition by excavator.**



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Trigger Tasks

Trigger Tasks, listed or not (some are described, but not specifically listed), where lead is present, **require the assumption of exposure above the PEL – regardless of the level of lead.**

Objective data can be used to eliminate concern for exposure above the PEL for materials with less than 600 ppm lead, **but only for non-trigger tasks!**

Objective data requires the presence of studies proving that exposures cannot exceed the PEL. It is a lot more than levels of lead below 600 ppm.

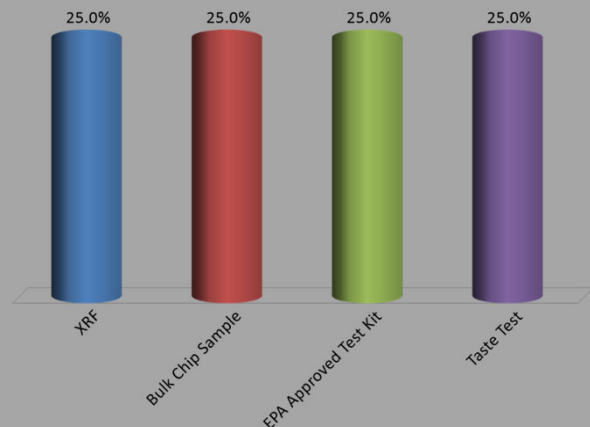
Objective data cannot be used to negate initial determinations for Trigger Tasks (listed or not). Trigger task requirements apply regardless of the lead level (except with results below detectable limits by chip sample analyses).

21

Which of the following methods can be used to “prove” a paint contains no lead (or rather, can be handled as having no lead, per the regulation).

(Pick all that apply)

- A. XRF
- ✓ B. Bulk chip sample
- C. EPA-approved test kit
- D. Taste test



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Trigger Task Changes

OSHA will use the term “Trigger Tasks” in the regulation, rather than “lead-related activity”

Level 1 Trigger Task - assumed to expose workers up to 10 times the PEL (100 $\mu\text{g}/\text{m}^3$) – a half mask air-purifying respirator is required until a NEA is established. **Half mask is okay** for manual demolition of structures (e.g., dry wall), manual scraping, and heat-gun operations.

Level 2 Trigger Task - assumed to expose workers above 100 $\mu\text{g}/\text{m}^3$. **Quantitative fit test for a full-face, negative pressure respirator** for manual sanding, power tool cleaning, grinding, or sanding with dust collection systems and, spraying lead paint.

Level 3 Trigger Task - assumed to expose workers above 500 $\mu\text{g}/\text{m}^3$. **That means a tight-fitting, powered air purifying respirator (PAPR).** Tasks include using lead-containing mortar, lead burning, rivet busting, power tool cleaning, grinding, or sanding without dust collection systems, cleanup activities where dry expendable abrasives are used, abrasive blasting enclosure movement and removal, abrasive blasting, welding, torch cutting and burning.

(Some of these activities, like abrasive blasting, may require higher level respirators)

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Wait – I thought they were going to give abrasive blasters their own PEL at 25 $\mu\text{g}/\text{m}^3$... What happened to that?

They eliminated it from Revision 1, and brought it back in Revision 3

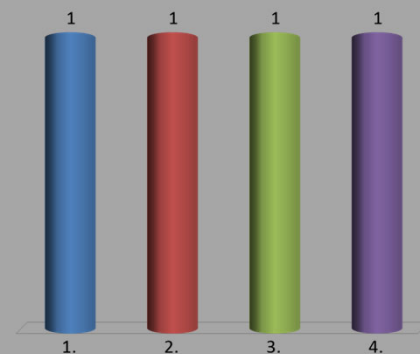
As an exception (to the standard PEL), until *(insert 5 years from effective date here)*, **no employee conducting abrasive blasting shall be exposed to lead at concentrations greater than 25 $\mu\text{g}/\text{m}^3$, calculated as an 8-hour TWA.**

This **does not apply** to those **cleaning, or moving**, abrasive blasting enclosures.

24

Currently, medical surveillance is required if the blood lead level (BLL) is above 40 $\mu\text{g}/\text{dl}$. The new level will be:

1. 5 $\mu\text{g}/\text{dl}$ – the current level for priority intervention
- ✓ 2. 10 $\mu\text{g}/\text{dl}$
3. 20 $\mu\text{g}/\text{dl}$
4. 50 $\mu\text{g}/\text{dl}$ (they would not raise the level!)



25

Currently medical surveillance (not just monitoring) is required, if lead exposures are above the action level for 30 days in a year... The new number of days, at the new action level, will be....

1. 5 days
- ✓ 2. 10 days
3. 20 days
4. 50 days



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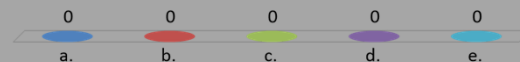
Blood Testing Requirements

(D) Elevated blood lead level response. **Whenever an employee has a blood lead level at, or above, 10 $\mu\text{g}/\text{dl}$,** each employer shall establish and implement a written, elevated blood lead level response plan with a description of specific means that will be employed to reduce and maintain employee blood lead levels to below 10 $\mu\text{g}/\text{dl}$.

27

With the new rule, medical removal happens with...
(Pick all that apply)

- ✓ a. A BLL of 20, for two consecutive tests
- ✓ b. A BLL of 30, for any test
- ✓ c. An average of all blood lead tests over last 6 months at, or above, 20 $\mu\text{g}/\text{dl}$
- ✓ d. Finished when two consecutive (30 days apart) tests are below 15 $\mu\text{g}/\text{dl}$
- e. None of the above



28

New 1532.1 issues – that was fun, however...

This only covered 1532.1 – there are similar changes in 5198

This was a summary of the BIG changes – there is more changing in 1532.1 than we had time to cover today – this includes new requirements for training levels, air sampling and medical surveillance (beyond what we discussed) and other issues.

There is more to learn by reading the new regulations...

There are a few other things to think about...

29

AB 35 went into effect on 02/01/20

This rule makes blood lead levels above 20 micrograms of lead in a deciliter of blood (20 µg/dl) an issue for every contractor in the construction world, and alerts every maintenance worker in any type of facility, to lead levels of concern...

Workers that will be, or are, exposed to lead (at any level) must have their blood lead levels tested (**that is everybody!**).

All blood level tests are reported to CDPH.

If an adult blood lead level is found at 20 µg/dl of blood, CDPH must notify Cal/OSHA.

Cal/OSHA must then open an investigation into the project on which the worker is employed.

THIS WENT INTO EFFECT 2/1/20

30

An old rule which (almost) nobody has followed for years, if not decades...

8 CCR 5155

If you are exposed to multiple materials that present the same medical hazards, you must:

- collect personal air samples for each different hazard
- add together the percent of the PEL you are exposed to, without regard for respirator use, for each similar hazard.
- If the percentage of the PELs for each similar material add up to more than 100%, you must don PPE (suits and respirators at least) considered protective for the type of exposure (gas, vapor, particulate, etc..) to which you are exposed.

Wait, wait, **WHAT?**

31

8 CCR 5155 (changes to 1532.1 and 5198 require changes to 5155 – which means new regulatory scrutiny for 5155 too!)

8 CCR 5155(c)(1)(B) When substances have additive health effects, as described in section (B) of the Appendix to section 5155, the value of PEL percentages combined, shall not exceed 100%. (revised into more understandable language...)

Example (PELs, and exposures, listed in $\mu\text{g}/\text{m}^3$):

PEL	Lead = 10	Hexavalent Chromium = 5	Beryllium = 25
Exposure	<u>5</u>	<u>2</u>	<u>5</u>
% of PEL	50%	40%	20%
Total additive percent of PELs = 50% + 40% + 20% = 110%			

This level of exposure requires PPE including respirators, even though none of the PELs are more than half of their allowable level.

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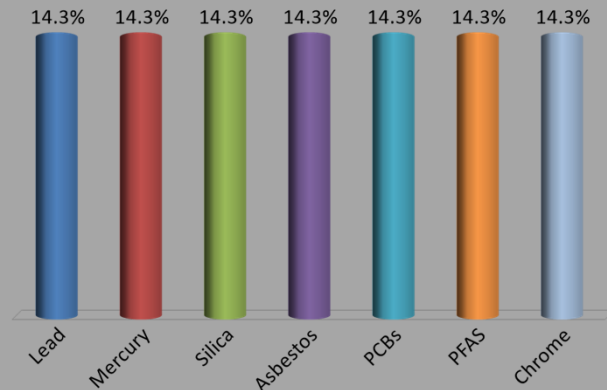
One last chance to score some points!

Most potentially-hazardous materials, only need to be accounted for if they are known to exist... regardless of age or type of building.

Which of the following materials must be **presumed to exist** in paint (and maybe other construction materials) before any construction activity? (Unless bulk sample results are below regulatory levels)

(Pick all that apply)

- ✓ A. Lead
- B. Mercury
- ✓ C. Silica
- ✓ D. Asbestos
- E. PCBs
- F. PFAS
- G. Chrome



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Other Changes

The Cal/OSHA changes are due take effect on 1/1/25

The following changes are likely to initiate, two to three years out from now:

- CDPH total revamp of Title 17 Lead-Related Construction
- RRP Rule coming into CA jurisdiction
- EPA and HUD - Lead in dust, paint and soil regulatory levels.

I can tell you what I do know about these coming changes – and, with the exception of Cal/OSHA, they are all subject to change between now, and when issued.

But what we really want to know is - WHO WON THE GAME?

34

Participant Leaders

Points

Participant

Points

Participant

35

35

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