



Department of
Toxic Substances
Control

*The Mission of the
Department of
Toxic Substances
Control is to
provide the highest
level of safety, and
to protect public
health and the
environment from
toxic harm.*



State of California



California
Environmental
Protection Agency

Fact Sheet, April 2009

Caltrans Statewide Variance for Reuse of Lead-Contaminated Soils

You are invited to review and comment on the issuance of a variance to State Hazardous Waste Control Laws for the California Department of Transportation (Caltrans) to reuse soil containing elevated concentrations of aerially deposited lead. The request applies to various freeway construction sites in all Caltrans Districts statewide. A similar variance was issued by DTSC in 2000 for specific Caltrans Districts (4, 6, 7, 8, 10, 11 and 12).

The fact sheet contains information on the following topics:

- Variance History and Background
- Caltrans Request
- Health Risk Assessment
- The Variance
- California Environmental Quality Act
- What happens next?
- Information Repositories

PUBLIC COMMENT PERIOD

April 30, 2009 to June 5, 2009

DTSC encourages you to review and comment on the Draft Variance. DTSC is holding a 30-day public comment period beginning **April 30, 2009** and ending **June 5, 2009**.

All comments must be postmarked or received by **June 5, 2009**. Please submit your comments to:

Wayne Lorentzen
DTSC Project Manager
8800 Cal Center Drive
Sacramento, California 95826
WLorentz@dtsc.ca.gov

DTSC will hold a public meeting at the following locations:

Wednesday, May 6, 2009

5:30 p.m.

AC Bilbrew Library
150 E. El Segundo Boulevard
Los Angeles, California 90061

Wednesday, May 13, 2009

6:00 p.m.

Caltrans District 3 Office
2800 Gateway Oaks Drive, Suite 100
Sacramento, California 95833

Wednesday, May 20, 2009

6:00 p.m.

Caltrans Fresno District 6 Office
2015 E. Shields Ave. Suite A-100
Fresno, California 93726



Variance History and Background

Until the mid-1980's, gasoline and other fuels contained lead. As each motor vehicle traveled the highways, tiny particles of lead were emitted in the exhaust and settled on the soils next to the freeways and roads. Most of the time, lead tends not to move very far or very fast in the environment. Over the years, lead built up alongside the freeways and roads. Caltrans highway-widening projects disturb the soils, some of which contains lead. DTSC regulations specify at what levels lead in soil is considered to be a hazardous waste. In areas where road construction will occur, Caltrans has found levels of lead that are higher than DTSC's specifications. The lead is found within 30 feet of the edge of the pavement and within the top six inches of the soil. In some cases, the lead is as deep as two to three feet below the surface.

Caltrans Request

In April 1996, Caltrans asked DTSC to grant a variance from the hazardous waste rules to allow road construction projects to reuse soils containing lead from motor vehicle exhaust on the project site. Although the level of lead found in some areas is higher than that which is considered to be hazardous waste, Caltrans proposed to reuse the soil along the freeways and roads under construction without posing a threat to human health or the environment.

Caltrans has identified several potential uses for the soil containing lead. These include:

- raising ground level for building park-and-ride lots and placing under new roads;
- building embankments at freeway overcrossings and interchanges;
- creating small hills along parts of freeways and roads;
- using as backfill for structures, to replace soils which construction crews remove to construct sound walls;
- re-filling trenches and holes created by removing obstacles, such as trees and barriers that are no longer needed; and
- as roadbase fill, to level out the ground.

Caltrans proposed that these applications keep the lead-contaminated soil in defined areas. Also, these are areas in which people spend little, if any, time so they would not come into contact with the lead.

In addition, Caltrans has incorporated sections in its contracts with construction contractors that would require contractors to handle the lead-contaminated soil in certain ways. For example, soil found to contain lead would be kept separate from non-hazardous soil and the contractor would have to take dust control and security measures to keep people from coming into contact with it until it is reused. The lead would stay in place (beneath the road, highway, freeways, or a thick layer of clean soil, etc.) for the life of the highway. Even though current freeways and roads are designed to last 30 to 50 years, Caltrans notes that additional upgrades and widening are much more likely than abandoning old freeways. Therefore, the lead remains secure, and human health and the environment are protected.

Health Risk Assessment

In reviewing the variance request, DTSC studied how people might be exposed to the lead left in the soil and how best to protect their health. DTSC concluded that Caltrans could reuse soil containing lead as long as the concentration is below a certain level and people are kept from coming into contact with the lead-containing soil.

Lead is toxic and it is present everywhere in the environment, most often at very low levels. If lead gets into the body above certain levels, it can cause damage to the nervous system or blood cells. Children are at the highest risk because their bodies are still developing. In children, even relatively low blood lead levels can cause learning disabilities. However, lead must enter the bloodstream to be harmful.

People can absorb lead into their blood in several ways. Adults, and especially children, could swallow lead that is attached to small dirt particles, either blowing around and getting into their mouths, or on their hands. People can also swallow lead if it has gotten into drinking water. There are other routes of exposure, but DTSC does not believe that those routes apply in this case.

The proposed variance takes into account DTSC's conclusions that people should not be exposed to levels of lead above those found throughout the environment. It specifies what Caltrans can do with soil containing lead.

The Variance

DTSC reviewed Caltrans' request for a variance and is proposing to approve the variance with special provisions. This section outlines key conditions of the variance:

- The variance would only apply to soils containing lead from motor vehicle exhaust;
- Caltrans must sample and test soils for lead content;
- When implementing the variance, Caltrans must obtain the approval of other state, regional, and local regulatory authorities;
- Caltrans must take certain steps when lead is at or above specified levels;
- Caltrans will properly dispose of lead-containing soil for which it has no use;
- Caltrans will be restricted to placing the soils only in areas that are at least five feet above the maximum water table elevation;
- Caltrans must keep lead-contaminated soil that it digs up in the area of contamination, and must keep it covered with thick plastic until it is reused;
- Caltrans may only reuse the soil within the designated freeway corridor from which it came;
- Caltrans will not reuse lead-contaminated soil where the soil could come into contact with workers, plants, ground or surface water, and the soil must be placed where it will be protected from erosion and runoff; and
- Caltrans will keep records and provide detailed reports to DTSC when it handles the soil containing lead. Caltrans will make copies of those records available to the public at applicable Caltrans District offices and at the appropriate information repositories.

The proposed Variance contains several other detailed technical requirements as well. The table at the right shows the actions that Caltrans may take depending on the lead concentration of the soil.

To put the numbers shown in the table in context, soil containing lead is considered a hazardous waste if the total lead level is more than 1,000 parts per million (ppm), or if the soluble lead level is more than 5 milligrams per liter (mg/L). Soil naturally has small amounts of lead in it, about 50 ppm. City soils commonly contain 200 to 500 ppm of lead.

Finally, as Caltrans plans and designs its highway projects, each project must comply with Federal as well as State environmental quality laws.

Extractable Lead	Total Lead	Caltrans may take the following steps
At or less than 1.5 mg/L	At or less than 1411 ppm	Soil may be reused, as long as it is placed at least five feet above the maximum water table elevation and covered with one foot of non-hazardous soil.
At or less than 150 mg/L	At or less than 3397 ppm	Soil may be used as fill, as long as it is placed five feet above the maximum water table elevation and covered with pavement or similar cap.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires DTSC to evaluate the request for a variance to determine if it could have significant adverse impacts. DTSC completed an Initial Study and determined that the proposed project would not have a significant adverse impact. This finding is described in the Negative Declaration.

The environmental assessment included areas that could potentially be affected (soil, air, surface and ground water, transportation, public health and safety, etc.). DTSC analyzed the potential for residents, school children, etc., to be exposed to the lead-contaminated soil. The finding that the project would not have an adverse impact on the environment was based on:

- the low level of toxicity of the lead at the concentrations in the contaminated soil
- the lead-contaminated soil would be contained by pavement or overlaying soil and would not move.

What happens next?

The public comment period begins April 30, 2009 and ends June 5, 2009, during which time you can provide us with your comments and questions about the Variance and proposed Negative Declaration. All comments must be postmarked by or emailed by June 5, 2009.

After the close of the Public Comment Period, DTSC will review and consider any public comments and make any necessary revisions to the draft Variance prior to final approval. Also, a Response to Comments document will be mailed to everyone who makes a comment and provides their name and address.

Information Repositories

Caltrans District 3 Office 1120 N Street, MS 27 Sacramento, CA 95814 (916) 653-3876	Caltrans District 7 Office 120 South Spring Street Los Angeles, Ca 90012 (213)897-0693
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Caltrans District 6 Office 1352 West Olive Ave Fresno, CA 93728 (559)243-8234	DTSC Sacramento File Room 8800 Cal Center Drive Sacramento, CA 95826 (916)255-3758 Call for an appointment
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For More Information

Please contact the following DTSC staff with any questions or concerns you may have about this project.

For questions regarding the Variance, contact:

Mr. Wayne Lorentzen,
DTSC Project Manager
(916)255-3883 or
by email at WLorentz@dtsc.ca.gov

For questions regarding the public participation process, contact:

Ms. Tammy Pickens,
DTSC Public Participation Specialist,
toll-free at (866)495-5651 or (916)255-3594 or
by email at TPickens@dtsc.ca.gov

For questions regarding the media, contact:

Ms. Claudia Loomis
DTSC Public Information Officer,
(916)255-6578 or
by email at CLoomis@dtsc.ca.gov

**COMMENT FORM AND MAIL COUPON
FOR THE CALTRANS LEAD VARIANCE PROJECT**

You may use this sheet to send your comments and to be added to or taken off the mailing list. If you use this form to send us your comments, please include your name and address. All written comments must be postmarked no later than June 5, 2009. Please send this form to:

**Wayne Lorentzen
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826**

You may also email this same information to: WLorentz@dtsc.ca.gov

Please add me to the mailing list Please take me off the mailing list

Name: _____

Address: _____

Affiliation (if any): _____

Phone Number (optional): _____

Comments: _____

Notice To Hearing Impaired Individuals

TDD users can use the California Relay Service (1-888-877-5378) to reach
Ms. Tammy Pickens at (916) 255-3594.