



**CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)
HUMAN AND ECOLOGICAL RISK OFFICE (HERO)**

HERO is pleased to announce our sixth “Quarterly Updates from HERO” – October 2016

1. Revisions to Human Health Risk Assessment (HHRA) Note 4 – Conducting Screening Level Human Health Risk Assessments, July 2016. The update to this HHRA Note is described below with a link to the entire HHRA Note:

HHRA Note 4 - HHRA Note 4 outlines the current recommended methodology for conducting screening level human health risk assessments and how to apply the recommended screening levels discussed in HHRA Note 3 at DTSC hazardous waste sites and permitted facilities. This HHRA Note replaces our 1994 memorandum and is an update to our July 1, 2016 Note 4. This revision incorporates clarification for sites with elevated chemical concentrations known to exist at depths greater than 10 feet below ground surface and typographic corrections. The updated HHRA Note 4 can be found at: <http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-4-October-26-2016.pdf>, and <http://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>.

2. ***NEW** – Human Health Risk Assessment (HHRA) Note 6 – Recommended Methodology for Evaluating Site-Specific Arsenic Bioavailability in California Soils, August 22, 2016. The HHRA Note is described below with a link to the entire HHRA Note:

This note introduces the California Arsenic Bioaccessibility (CAB) method. CAB is the recommended in vitro method for site-specific evaluation of arsenic bioavailability where arsenic levels in soil are 1500 mg/kg or less. It can accurately predict in vivo relative bioavailability (RBA) and can be used in place of expensive and time-consuming animal studies. The use of site-specific RBA reduces the uncertainty of the risk assessment thereby improving remedial decision making. Using the CAB method, where appropriate, often leads to a more effective use of the resources available for remediation without compromising the level of health protectiveness. The CAB method is the outcome of a Brownfields Training, Research and Technical Assistance Grant from the US EPA (Brownfields Research Cooperative Agreement TR - 83415101) and was developed in collaboration with Nicholas Basta at The Ohio State University. For more detailed information on how the method was developed and additional work completed under this grant please refer to our Study webpage at http://www.dtsc.ca.gov/InformationResources/Arsenic_Relative_Study.cfm. The HHRA Note can be found at: <http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-6-CAB-Method-082216.pdf>.

3. ***NEW** – Human Health Risk Assessment (HHRA) Note 7 – Updated OEHHA Inhalation Cancer Toxicity Criteria for Tetrachloroethylene (PCE) and Recommended Ambient Air and Soil Gas DTSC-Screening Levels (SLs). The HHRA Note is described below with a link to the entire HHRA Note:

This note discusses the possible implications for the risk assessment of tetrachloroethylene (PCE) at DTSC sites due to the recent changes in the PCE inhalation toxicity criteria published by the Office of Environmental Health Hazard Assessment on September 8, 2016. The HHRA Note can be found at: <http://www.dtsc.ca.gov/upload/HHRA-Note-7-OEHHA-PCE-Toxicity-Criteria-DTSC-SL-Air-and-Soil-Gas-ver2016-10-17.pdf>.

4. ***NEW** – HERO News E-List. HERO has created a list serve where subscribers will receive e-mail notifications regarding news on topics related to human and ecological risk assessment including HERO Quarterly Updates, new and updated HHRA Notes, new and updated EcoNotes, as well as other risk assessment guidance documents, presentations, and publications.

To scribe: 1) Go to the “E-Lists” tab near the upper right border of any DTSC or HERO web page; 2) Please read the instructions on signing up for E-Lists; 3) Scroll down until you see “**HERO News**”, click “**Subscribe**”, then fill out the requested information.

The direct link to the DTSC E-List sign-up page can be found at:

<http://www.dtsc.ca.gov/ContactDTSC/ELists.cfm>. We are currently working on setting up a HERO specific E-List signup page.

Please contact your site toxicologist if you have any questions.

Thank you,

HERO