



TGM for the Implementation of the Hawai'i State Contingency Plan ADDITIONAL GUIDANCE DOCUMENTS

Technical Guidance Manual

ADDITIONAL GUIDANCE DOCUMENTS

Effective Date	Description	Link
October 2017	<p>Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material: Provides guidance related to import and export of fill material for contaminant removal or remediation sites. This includes:</p> <ul style="list-style-type: none">• The HEER Office definition of "acceptable fill material"• Overview of the fill material determination process• Some sources of fill considered suspect for contamination• Fill material sampling strategies and methods (including stockpiles), and• Other fill material management considerations <p>Reference: HDOH 2017d</p>	<p>PDF Link <i>will open a new window.</i></p>
October 2012	<p>Additional Notes on HDOH report Field Investigation of the Chemistry and Toxicity of TPH in Petroleum Vapors</p> <ul style="list-style-type: none">• This Q&A provides responses to common questions regarding the August 2012 HDOH TPH vapor report. <p>Reference: HDOH 2012c</p>	<p>PDF Link <i>will open a new window.</i></p>
June 2012	<p>Summary of Pesticide and Dioxin Contamination Associated with Former Sugarcane Operations</p> <ul style="list-style-type: none">• Provides an overview of chemical contaminants found at former Sugarcane Operations, compiled from case files at HDOH.• Includes target pesticide groups for different former sugarcane operations, and individual site data summaries.• Supplemental data to Section 9 of the Hawai'i HEER TGM addressing pesticide contamination at former agricultural facilities and sites. <p>Reference: HDOH 2011d</p>	<p>PDF Link <i>will open a new window.</i></p>
October 2011	<p>Batch Test Leaching Model Spreadsheet: An update to the October 2008 spreadsheet to calculate Kd desorption coefficient and estimate contaminant concentration in source area leachate and in groundwater.</p>	<p>XLS Link <i>will open a new window.</i></p>

	<ul style="list-style-type: none"> Refer to April 12, 2007 guidance on "<i>Use of Laboratory Batch Tests to Evaluate Potential Leaching of Contaminants from Soil</i>" for background and use of this spreadsheet 	
March 2011	<p>Use of Decision Unit and Multi-increment Soil Sample Investigation Approaches to Characterize a Subsurface Solvent Plume.</p> <ul style="list-style-type: none"> TCE-contaminated soil located from 6 ft below ground surface down to 15-25 feet below ground surface at a site on Hickam Air Force Base, O`ahu was investigated using Decision Unit (DU) and Multi-increment Sampling (MIS) techniques. 29 borings were installed within an area of approximately 100,000 square feet (the DU), and DU soils were further subdivided into seven vertical layers. The boreholes and layers were investigated separately, but combined to make decisions about the DU as a whole. A total of 164 "core increments" (a section of a borehole corresponding to a specific DU layer) were subsampled and collected from targeted DU layers, and replicates were also collected from a number of boreholes. Data was utilized to determine average concentrations of VOCs in each borehole and for targeted DU layers. The data were also used to identify the lateral and vertical location and mass of the subsurface contamination. Note: The data tables included in the PDF copy of this report (see "PDF Link") are provided <HERE> in EXCEL Tables to enable users to run discrete vs multi-increment sample scenarios, or other analyses of this data. Author notes and calculations are provided <HERE> <p>Reference: HDOH 2011i</p>	<p>PDF Link will open a new window.</p>
March 25, 2011	<p>Technical Guidance Manual Notes: Decision Unit and Multi-increment Sample Investigations.</p> <ul style="list-style-type: none"> A compilation of notes and recommendations for Decision Unit (DU) and Multi-increment Sampling (MIS) site investigations. Addendum to TGM guidance, based on experience since publication of the revised TGM in 2008 and 2009. This information will be incorporated in future updates to the TGM. <p>Reference: HDOH 2011b</p>	<p>PDF Link will open a new window.</p>
Initially posted February 2005 then periodically updated – see link for latest update	<p>Screening for Environmental Hazards at Sites with Contaminated Soil and Groundwater (or "EHE Guidance"). The HEER Office EHE Guidance and HEER Office TGM are the two major HEER Office technical guidance documents. Topics covered in the EHE Guidance include:</p>	<p>Link will open a new window.</p>

	<ul style="list-style-type: none"> • Environmental Action Levels for Soil, Soil Gas, and Groundwater • Environmental Action Levels Surfer (electronic lookup tables) • Guidance on the site-specific evaluation of environmental hazards, including direct exposure, vapor intrusion, leaching and contamination of groundwater, impacts to drinking water resources, impacts to aquatic and terrestrial ecological habitats, gross contamination, etc. • Additional guidance on the preparation of Environmental Hazard Evaluations (EHEs) • Additional spreadsheet models for use in more site-specific EHEs <p>Reference: HDOH 2011f</p>	
June 27, 2007	<p>Long-term Management of Petroleum-Contaminated Soil and Groundwater.</p> <ul style="list-style-type: none"> • Technical memorandum outlines procedures for long-term management of residual petroleum contamination in soil and groundwater at sites where full cleanup is not practicable. <p>Reference: HDOH 2007c</p>	<p>PDF Link will open a new window.</p>
April 12, 2007	<p>Use of Laboratory Batch Tests to Evaluate Potential Leaching of Contaminants from Soil.</p> <p>Guidance for assessing the potential impact to groundwater posed by leaching of contaminants from vadose-zone soils. This model uses site-specific soil data to evaluate contaminant mobility and estimate contaminant concentrations in soil leachate and future impacts to groundwater based on leachate dilution assumptions.</p> <ul style="list-style-type: none"> • See October 2008 <i>Batch Test Leaching Model Spreadsheet</i> to facilitate use of this model. <p>Reference: HDOH 2007</p>	<p>PDF Link will open a new window.</p>