



UST Corrective Action Program Checklist

RBCA Tier 3 Submittal Checklist Soil Vapor Surveys

In accordance with A.A.C. R18-12-263.01

UST Facility Name _____ Assigned UST Facility ID 0-0 _____ Assigned LUST Release ID _____

Gasoline (E10) Gasoline (with MTBE) Gasoline (Leaded) Diesel
Used Oil Jet Fuel Other _____

ADEQ Soil Vapor Sampling Guidance Document (revised April 2017): http://static.azdeq.gov/legal/subs_policy_svsg.pdf

Yes	No	Report Submittal
<input type="checkbox"/>	<input type="checkbox"/>	Report/letter summarizing field activities
<input type="checkbox"/>	<input type="checkbox"/>	Field notes
<input type="checkbox"/>	<input type="checkbox"/>	QA/QC Soil Vapor Survey Checklist includes each vapor sampling point
<input type="checkbox"/>	<input type="checkbox"/>	Laboratory analytical data including QA/QC data for EPA Method TO-15 including all 31 AZ compounds http://static.azdeq.gov/ust/analytical_data.pdf
<input type="checkbox"/>	<input type="checkbox"/>	Sample location map showing vapor probe locations at the LUST release area(s) and near any occupied buildings
<input type="checkbox"/>	<input type="checkbox"/>	Detection Summary Table with soil vapor results reported in µg/m3 and leak detection compound reported in ppbv
<input type="checkbox"/>	<input type="checkbox"/>	Screening Level Johnson & Ettinger Model [forward calculation] indoor air simulation results* http://www3.epa.gov/ceampubl/learn2model/part-two/onsite/JnE_lite_forward.html

Yes	No	Field Procedures
<input type="checkbox"/>	<input type="checkbox"/>	Sample depth no greater than 5 feet bgs, no shallower than 3 feet bgs Note: Deeper sampling depth may be necessary due to site specific issues - check with UST program Note: Geotechnical data can be collected and used in the model instead of default values
<input type="checkbox"/>	<input type="checkbox"/>	Field duplicate(s) collected at a rate of 1 per 20 samples
<input type="checkbox"/>	<input type="checkbox"/>	Ambient air (background sample collected upwind at the site)
<input type="checkbox"/>	<input type="checkbox"/>	Equipment blank(s) or field blank(s) collected daily (use Nitrogen or clean tank air only in the field; The equipment blank may also be provided by the laboratory)
<input type="checkbox"/>	<input type="checkbox"/>	Purge and sample rate ≤200 ml/min Note: Over purging can happen under concrete so the rate can be reduced to 100 ml/min
<input type="checkbox"/>	<input type="checkbox"/>	Temporary probes (correct internal volume purged)
<input type="checkbox"/>	<input type="checkbox"/>	Permanent probes (correct number of internal purge volumes)
<input type="checkbox"/>	<input type="checkbox"/>	Summa canisters certified clean

Screening Level Johnson & Ettinger Model

*Chemical of concern to be modeled are the maximum concentration of each chemical that exceeds 1/10th of EPA Regional Screening Level Resident Air Supporting Table (lowest value reported). This is done to evaluate cumulative risk of all chemicals of concern. [Use the resident air table with Target Risk = 10⁻⁶ and THQ = 1.0]. Toxicity information (reference concentration and unit risk factor) must be updated in the model using information found in the most current EPA Regional Screening Level resident air table.
http://www.epa.gov/req3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

Use High Indoor Air Prediction for determining cumulative cancer risk and cumulative hazard risk for petroleum related chemicals of concern, and non-petroleum related chemicals of concern for a conservative approach. The Best and Low Indoor Air Prediction may be used depending upon site specific conditions. The data collected is used to evaluate a future residential use at the LUST release area(s).

The User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings, revised February 22, 2004 prepared by Environmental Quality Management, Inc. for the US EPA provides information on what parameters can be updated in the model for site specific conditions.