

	Waste Programs Division Substantive Policy Statement	Page 1 of 5
	UST Release Confirmation	Rev. 001
		Effective: 9/1/2016

This Substantive Policy Statement is advisory only. A substantive policy statement does not include internal procedural documents that only affect the internal procedures of the agency and does not impose additional requirements or penalties on regulated parties or include confidential information or rules made in accordance with the Arizona Administrative Procedure Act. If you believe that this substantive policy statement does impose additional requirements or penalties on regulated parties, you may petition the agency under Arizona Revised Statutes section 41-1033 for a review of the statement.

1.0 Purpose

This policy statement explains ADEQ’s method of confirming and “opening” a release at an underground storage tank (UST) system using concentrations of petroleum related chemicals of concern in soil or groundwater.

2.0 Definitions

“Chemical of concern” means any regulated substance detected in contamination from a LUST site that is evaluated for potential impacts to public health and the environment. (R18-12-101)

“Laboratory reporting limit” means the minimum concentration of a substance that can be measured by a laboratory within specified limits of precision and accuracy. The reporting limit, which is a quantitation limit, is generally 5 to 10 times higher than the method detection limit. Reporting limits are unique to each laboratory.

“Laboratory analytical results” means outcomes of a specific procedure conducted in a laboratory intended to detect, identify, or quantify one or more specific substances.

“Method detection limit” means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte. (40 CFR 136, appendix B).

“PAH” means polycyclic aromatic hydrocarbons.

"Regulated substance" means:

- (a) Petroleum.
- (b) A substance specified in the comprehensive environmental response, compensation, and liability act of 1980 (P.L. 96-510; 94 Stat. 2767; 42 United States Code section 9601(14)) but not including a substance regulated as a hazardous waste under the hazardous and solid waste amendments of 1984 (P.L. 98-616; 98 Stat. 3221). (A.R.S. § 49-1001)

“Release confirmation” means free product discovery, or reported laboratory analytical results of samples collected and analyzed in accordance with the sampling requirements of R18-12-280

and A.A.C. Title 9, Chapter 14, Article 6 which indicates a release of a regulated substance from the UST system. (R18-12-101)

"Release" means a spill, leak, emission, discharge, escape, leach or disposal of a regulated substance from an underground storage tank into groundwater, surface water or soils." (A.R.S. § 49-1001)

"Tentatively identified compound" or "TIC" means a compound which can be detected by an analytical method but for which the concentration is estimated.

"VOC" means volatile organic compound.

3.0 Directive Statement//Release Confirmation

A.A.C. R18-12-101 defines "release confirmation" as "free product discovery, or reported laboratory analytical results of samples collected and analyzed in accordance with the sampling requirements of R18-12-280 and A.A.C. Title 9, Chapter 14, Article 6 which indicates a release of a regulated substance from the UST system."

Pursuant to this policy, any exceedance of the following concentrations of PAHs or VOCs reported in laboratory analytical results from soil or groundwater, when sampled and analyzed as described above, and at a location that indicates the UST system is the source confirms a release for that system. Each of the compounds listed are petroleum related chemicals of concern.

EXCEEDING THESE PAH CONCENTRATIONS IN SOIL OR WATER WILL CONFIRM A RELEASE

PAHs By EPA Method 8310 or 8270C- SIM	Soil Concentration for Release Confirmation mg/Kg	Groundwater Concentration for Release Confirmation µg/L
Acenaphthene	0.40	1.0
Anthracene	0.20	0.10
Benzo(a)anthracene	0.04	0.20
Benzo(b)fluoranthene	0.04	0.10
Benzo(k)fluoranthene	0.04	0.10
Benzo(a)pyrene	0.01	0.10
Chrysene	0.04	0.10
Dibenzo(a,h)anthracene	0.04	0.10
Fluoranthene	0.04	0.10
Fluorene	0.04	0.10
Indeno(1,2,3-c,d)pyrene	0.02	0.10
Naphthalene	0.20	0.50
Pyrene	0.04	0.10

EXCEEDING THESE VOC CONCENTRATIONS IN SOIL OR WATER WILL CONFIRM A RELEASE

VOCs By EPA Method 8260B plus TICs	Soil Concentration for Release Confirmation mg/Kg	Groundwater Concentration for Release Confirmation µg/L
Benzene	0.25	2.0
Ethylbenzene	0.50	2.0
Toluene	0.25	5.0
MTBE	0.25	1.0
1,2,4-Trimethylbenzene	0.25	2.0
1,3,5-Trimethylbenzene	0.25	2.0
Naphthalene	0.25	5.0
Xylenes (total)	0.50	3.0
n-Butylbenzene	0.25	5.0
sec- Butylbenzene	0.25	5.0
tert-Butylbenzene	0.25	5.0
Carbon Disulfide	0.44	9.1
Isopropylbenzene (Cumene)	0.25	2.0
n-Propylbenzene	0.25	2.0
1,2-DCA (1,2- Dichloroethane)	0.25	2.0
n-Hexane	0.50	10.0
p-Isopropyltoluene (p- Cymene or 4- Isopropyltoluene)	0.25	2.0
EDB (1,2- Dibromoethane or Ethylene dibromide) (note: AWQS is 0.05 µg/L)*	0.25	*2.0 for Method 8260B * 0.02 for Method 504.1 or 8011
1,3-Butadiene	0.50	2.0
Cyclohexane	0.50	2.0
4-Ethyltoluene	0.50	10.0
Methyl cyclohexane	0.50	10.0
Propylene (Propene)	0.50	10.0
Dicyclopentadiene	0.50	10.0

This policy updates the “Minimum Laboratory Reporting Limits” developed by ADEQ and the Underground Storage Tank Policy Commission in 2002 to confirm a release. The values have been updated to reflect current laboratory capabilities. The values listed are the highest laboratory reporting limits of ADHS’s five certified laboratories, as surveyed in 2015.

4.0 Directive Owner (Person Responsible for Implementing & Maintaining the Directive – Title/Unit/Section/Division)

WPD UST-LUST Section Manager

5.0 Audience

Arizona tank owners and operators, and tank consultants

6.0 Communication & Training

The Waste Programs Division UST-LUST Principal Scientist will schedule a meeting within 45 days of the policy effective date and annually thereafter to review the policy and insure that employees that deal with UST issues are familiar with the policy’s content, including procedures for compliance, audit and review.

7.0 Compliance & Audit Plan

Prior to each annual review, the UST-LUST Principal Scientist will arrange for a records review or similar inquiry to estimate the number of recent releases that have resulted directly from the current policy. Each annual review shall evaluate whether external stakeholders are aware of the policy and explore methods to increase awareness if needed.

8.0 Review & Revision

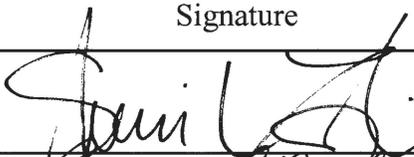
This directive will be reviewed on an annual basis.

9.0 Additional Documentation

ADEQ has authority under its statutes to determine a release. see A.R.S. § 49-1091(G)(4).

This policy complements but does not replace “Release Reporting & Corrective Action Technical Guidance” <http://www.azdeq.gov/environ/waste/ust/lust/tg.html>

10.0 Approved by:

Title	Name	Signature	Date
Administrative Counsel	Sherri Zendri		7/21/2016
Division Director	Laura Malone		7/21/2016

11.0 Historical Note

[Describes the changes or updates to a directive, which serves as a reference for the reader to understand any past changes.]

Date	Change	Ref. Section