

 **Agency for Toxic Substances & Disease Registry** Public Health Assessments & Health Consultations

PUBLIC HEALTH ASSESSMENT

LITCHFIELD AIRPORT AREA
(a/k/a PHOENIX GOODYEAR AIRPORT)
GOODYEAR, MARICOPA COUNTY, ARIZONA
EPA FACILITY ID: AZD980695902 

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Prepared by:

Arizona Department of Health Services
Office of Environmental Health
Under Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry

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LIST OF ACRONYMS AND ABBREVIATIONS

ADHS	Arizona Department of Health Services
ADEQ	Arizona Department of Environmental Quality
ALAA	American Lung Association of Arizona
ACS	American Cancer Society
ATSDR	Agency for Toxic Substances and Disease Registry

CDD	polychlorinated dibenzo-p-dioxins
CDF	polychlorinated dibenzofurans
COC	chemical of concern
HBGL	Health-based Guidance Levels
IMSAMET	name of the aluminum smelter in the Goodyear area
LIPSCO	Litchfield Water Company
MAG	Maricopa County Association of Governments
MCL	maximum contaminant level
MEK	methly ethyl ketone
mg/m³	milligrams per cubic meter
m/sec	meter per second
MRL	minimal risk level
NA	not applicable
ND	not-detected
NRC	National Research Council
NS	not sampled
OAC	outdoor air concentrations
OSHA	Occupational Safety and Health Administration
PCBs	polychlorinated biphenyls
PCP	pentachlorophenol
PGA	Phoenix Goodyear Airport
PM-10	particulate matter
ppb	parts per billion
ppm	parts per million
RID	Roosevelt Irrigation District
SLE	Systemic Lupus Erythematosus
SRLs	Soil Remediation Levels
TCA	trichloroacetic acid
TCDD	dioxin (tetrachlorodibenzo-p-dioxin)
TCE	trichloroethylene
TSH	thyroid-stimulating Hormone

USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
µg/L	micrograms per liter

GLOSSARY

aquifer

a permeable rock stratum below the earth's surface through which groundwater moves; generally capable of producing water for a well.

chemicals of concern

chemicals whose concentrations are above the appropriate screening level.

clean

this word is used to describe water quality. This indicates that the water quality in question is in compliance with federal water quality standards developed by the United States Environmental Protection Agency.

detection limit

the minimum concentrations that must be accurately and precisely measured by the laboratory and/or specified in the quality assurance plan.

dose

the amount of contamination absorbed or deposited in the body of an exposed organism for an increment of time. A total dose is the sum of doses received by a person from a contaminant in a given interval resulting from interaction with all environmental media that contain the contaminant. Units of dose and total dose are often converted to units of mass per volume of physiological fluid or mass of tissue.

exposure

an event that occurs when there is contact at a boundary between a human being and the environment with a contaminant for a specific concentration for an interval of time: the units of exposure are concentration multiplied by time.

exposure pathway

the process by which an individual is exposed to contaminants that originate from some source of contamination and are categorized as inhalation, dermal, and/or ingestion exposures.

gene mutation

a persistent change in a single gene.

latency

the period between stimulus application and response onset.

maximum contaminant levels

enforceable drinking water standards that are protective of public health to the extent feasible with current technology.

minimal risk level

an estimate of daily exposure of a human being to a chemical (in mg/kg/day) that is likely to be without an appreciable risk of adverse noncancerous effects over a specified duration of exposure.

particulate

small, discrete, solid or liquid bodies, especially those suspended in a liquid or gaseous medium.

parts per million

one part per million (ppm) equals 1 pound chemical per million pounds of water.

public health assessment

an evaluation of relevant environmental data, health outcome data, and community concerns associated with a site where hazardous substances have been released.

quality assurance

a planned system of activities whose purpose is to provide assurance of the reliability and defensibility of the data.

quality control

a routine application of procedures for controlling the monitoring process. QC is the responsibility of all those performing hands-on operations in the field and in the laboratory.

route of exposure

means by which the contaminant actually enters or contacts the body, such as ingestion, inhalation, dermal contact, and dermal absorption.

soil remediation levels (SRLs)

health-based soil screening levels. SRLs protect against toxic doses of systemic toxicants and limit excess lifetime cancer risk to one-in-one-million.

volatile compounds

compounds amenable to analysis by the purge and trap techniques, also referred to as purgable compounds.

volatilization

the conversion of a liquid or solid into vapors.

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