

Appendix B2
Health Risk Assessment

Summary Maximum Annual Concentration (DPM)

Annual Concentration

Residential (ug/m3)	Worker (ug/m3)
0.00135	0.09000

Risk Assessment (SCAQMD 2017), Screening, Maximum Individual Cancer Risk (DPM)

	Inhalation Cancer Potency (CP) Factor [(mg/kg-day) ⁻¹]:	1.1	1.1	Ref 1.
	SCAQMD Table 4.1_ or 4.2_ = CEF (unitless):	677.4	55.86	Ref 2.
For MICR from CEFr, per SCAQMD Risk Assessment Procedures for Rules 1401 et al MICR = Cancer Potency (CP) x Dose (D) x 10 ⁻⁶ or, MICR = CP x concentration x CEFr x MPr x 10 ⁻⁶ where MPr = 1.0 for multi-pathway exposure, as only DPM CEFr or CEFw = Combined Exposure Factor, residential or worker	MICR:	1.01E-06	5.53E-06	^^^^ CEF's for lifetime exposure - not scaled to short-term construction
Cancer risk w/o age-specific sensitivity factors (pre-OEHHA 2015) For comparison with results per Hot Spots program Age sensitivity factors (ASFs) take into account the increased sensitivity to carcinogens during early-in-life exposure (OEHHA 2015)	Inhalation Unit Risk Factor [(ug/m3) ⁻¹]:	3.00E-04	3.00E-04	Ref 1.
	Cancer Risk w/o worker adjustment, DBR, or ASF's:	4.05E-07	2.70E-05	
Chronic, non-cancer health effects	Reference Exposure Level (REL), Chronic Inhalation [ug/m3]:	5.00E+00	5.00E+00	Ref 1.
	Chronic Hazard Index:	0.00027	0.018	

Ref 1: OEHHA, 2023 - Table 1. CONSOLIDATED TABLE OF OEHHA/ARB APPROVED RISK ASSESSMENT HEALTH VALUES

Ref 2: SCAQMD, 2017 - Table 4.1 D (resid.) or Table 4.2 D (worker) in SCAQMD PERMIT APPLICATION PACKAGE "N" for use in conjunction with Risk Assessment Procedures (Version 8.1).

Screening Level, Cancer Burden Estimate

Default worst-case population density	7,000 ppl/km2	2.25 km - radius of zone of impact, where > 1 in one million
	1.01E-06 MICR	15.9043 km2 - area of zone, where > 1 in one million
	Cancer Burden:	0.112 = MICR * total residential population in the zone

Ref: SCAQMD, 2017 - "INSTRUCTIONS FOR CALCULATING CANCER BURDEN" in RISK ASSESSMENT PROCEDURES for Rules 1401, 1401.1 and 212 (Version 8.1).

Summary HARP, Ouput from RAST (Cancer Risk)

*HARP - HRACalc v22118 4/18/2024 6:09:31 PM - Cancer Risk - Input File: C:\B_disp\3571.5-pola_laxt\TI-MSF_HRAInput.hra

INDEX	GRP1	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
	1 Residential	9901	DieselExhPM	0.00135	1.17E-06	30YrCancerDerived_Inh_FAH16to70	*	1.17E-06

*HARP - HRACalc v22118 4/18/2024 6:23:53 PM - Cancer Risk - Input File: C:\B_disp\3571.5-pola_laxt\TI-Worker_HRAInput.hra

INDEX	GRP1	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
	1 Worker	9901	DieselExhPM	0.09	0.00000557	25YrCancerDerived_InhSoilDerm	*	5.57E-06

Summary HARP, Ouput from RAST (Non-cancer Chronic Risk)

*HARP - HRACalc v22118 4/18/2024 6:09:31 PM - Chronic Risk - Input File: C:\B_disp\3571.5-pola_laxt\TI-MSF_HRAInput.hra

INDEX	GRP1	POLID	POLABBREV	CONC	SCENARIO	RESP
	1 Residential	9901	DieselExhPM	0.00135	NonCancerChronicDerived_Inh	2.70E-04

*HARP - HRACalc v22118 4/18/2024 6:23:53 PM - Chronic Risk - Input File: C:\B_disp\3571.5-pola_laxt\TI-Worker_HRAInput.hra

INDEX	GRP1	POLID	POLABBREV	CONC	SCENARIO	RESP
	1 Worker	9901	DieselExhPM	0.09	NonCancerChronicDerived_InhSoilDerm	1.80E-02