Air Quality Health Risk Calculations (Worst-Case)
Collinsville Uncontrolled R1

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.366**
	Construction Start	**5/1/2026**
	Construction Complete	**2/11/2028**
	Days	**651**
	Construction Emission per day (lb/day)	**1.124423963**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**0.005895417**
	Project Site Size (Acres)	**8.43**
	Project Site Size (meters^2)	**34114.99964**
	Length of Smalles Side (meters)	**184.7024625**
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)	**1.73E-07**
From AERMOD	Concentration Annual (Ug/M^3)	**0.019**

	Days	Days to years				
Duration	651	1.783561644				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.0189	0.0189	0.0189	0.0189	0.0189	0.0189
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000655	0.00001978	0.00001562	0.00001352	0.00000608	0.00000526
Construction Days	651	1.783561644				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.783561644	0	0	0	0
AT	70	70	70	70	70	70
FAH	1	1	0.72	0.72	0.73	0.73
Risk for Each Age Group	2.57321E-07	5.54297E-06	0	0	0	0
Risk per million Exposed	0.2573208	5.542967145	0	0	0	0
Cancer Risk Per Million Construction Duration	5.80					

Air Quality Health Risk Calculations (Worst-Case)
Collinsville Controlled R1

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.217**
	Construction Start	**5/1/2026**
	Construction Complete	**2/11/2028**
	Days	**651**
	Construction Emission per day (lb/day)	**0.666666667**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**0.00349537**
	Project Site Size (Acres)	**8.43**
	Project Site Size (meters^2)	**34114.99964**
	Length of Smalles Side (meters)	**184.7024625**
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)	**1.02E-07**
From AERMOD	Concentration Annual (Ug/M^3)	**0.011**

	Days	Days to years				
Duration	651	1.783561644				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.011	0.011	0.011	0.011	0.011	0.011
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000381	0.00001151	0.00000909	0.00000787	0.00000354	0.00000306
Construction Days	651	1.783561644				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.783561644	1.783561644	1.783561644	1.783561644	1.783561644
AT	70	70	70	70	70	70
FAH	1	1	0.72	0.72	0.73	0.73
Risk for Each Age Group	1.49763E-07	3.22607E-06	5.50432E-07	4.76274E-07	7.23793E-08	6.26567E-08
Risk per million Exposed	0.149763429	3.226065534	0			
Cancer Risk Per Million - Construction Duration	3.38					

Air Quality Health Risk Calculations (Worst-Case)
Collinsville Uncontrolled R2

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.366**
	Construction Start	**5/1/2026**
	Construction Complete	**2/11/2028**
	Days	**651**
	Construction Emission per day (lb/day)	**1.124423963**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**0.005895417**
	Project Site Size (Acres)	**8.43**
	Project Site Size (meters^2)	**34114.99964**
	Length of Smalles Side (meters)	**184.7024625**
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)	**1.73E-07**
From AERMOD	Concentration Annual (Ug/M^3)	**0.022**

	Days	Days to years				
Duration	651	1.783561644				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.022	0.022	0.022	0.022	0.022	0.022
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000762	0.00002302	0.00001818	0.00001573	0.00000708	0.00000612
Construction Days	651	1.783561644				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.783561644	0	0	0	0
AT	70	70	70	70	70	70
FAH	1	1	0.72	0.72	0.73	0.73
Risk for Each Age Group	2.99527E-07	6.45213E-06	0	0	0	0
Risk per million Exposed	0.299526857	6.452131068	0	0	0	0

Cancer Risk Per Million Construction Duration	6.75

Air Quality Health Risk Calculations (Worst-Case)
Collinsville Controlled R2

From CalEE Annual Output	Emission per day (Ton/Total Construction Duration)	**0.217**
	Construction Start	**5/1/2026**
	Construction Complete	**2/11/2028**
	Days	**651**
	Construction Emission per day (lb/day)	**0.666666667**
	Annual Duration (Days)	**365**
	Annualized Emission Rate (Grams/Second)	**0.00349537**
	Project Site Size (Acres)	**8.43**
	Project Site Size (meters^2)	**34114.99964**
	Length of Smalles Side (meters)	**184.7024625**
Used as an input to AERMOD	Emission Rate over Grading Area(g/s-m^2)	**1.02E-07**
From AERMOD	Concentration Annual (Ug/M^3)	**0.013**

	Days	Days to years				
Duration	651	1.783561644				
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From F15	0.013	0.013	0.013	0.013	0.013	0.013
Breathing Rate per agegroup BR/BW (Page 5-25)	361	1090	861	745	335	290
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000451	0.00001360	0.00001075	0.00000930	0.00000418	0.00000362
Construction Days	651	1.783561644				
potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED	0.25	1.783561644	1.783561644	1.783561644	1.783561644	1.783561644
AT	70	70	70	70	70	70
FAH	1	1	0.72	0.72	0.73	0.73
Risk for Each Age Group	1.76993E-07	3.81262E-06	6.5051E-07	5.62869E-07	8.55392E-08	7.40488E-08
Risk per million Exposed	0.176993143	3.812622904	0			
Cancer Risk Per Million - Construction Duration	3.99					