

*** SCREEN-1.1 MODEL RUN ***
*** DRAFT VERSION XXXXX ***

CMI BULK BORAX TANK

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = .2650E-01
STACK HEIGHT (M) = 15.24
STK INSIDE DIAM (M) = .15
STK EXIT VELOCITY (M/S) = 22.86
STK GAS EXIT TEMP (K) = 293.00
AMBIENT AIR TEMP (K) = 293.00
RECEPTOR HEIGHT (M) = .00
IOPT (1=URB,2=RUR) = 2
BUILDING HEIGHT (M) = .00
MIN HORIZ BLDG DIM (M) = .00
MAX HORIZ BLDG DIM (M) = .00

BUOY. FLUX = .00 M**4/S**3; MOM. FLUX = 2.94 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	U5TK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
10.	.9320E-14	1	1.0	1.0	320.0	25.2	4.1	2.9	NO
100.	4.432	1	1.0	1.0	320.0	25.2	27.0	14.2	NO
200.	5.156	2	1.0	1.0	320.0	25.2	36.3	20.4	NO
300.	5.420	3	1.0	1.0	320.0	25.1	34.4	20.5	NO
400.	4.762	4	1.0	1.1	320.0	24.9	29.6	15.5	NO
500.	4.864	5	1.0	1.2	5000.0	22.2	27.1	13.1	NO
600.	5.053	5	1.0	1.2	5000.0	22.2	32.0	14.9	NO
700.	4.906	5	1.0	1.2	5000.0	22.2	36.9	16.7	NO
800.	4.608	5	1.0	1.2	5000.0	22.2	41.6	18.4	NO
900.	4.425	6	1.0	1.3	5000.0	21.4	30.9	13.2	NO
1000.	4.451	6	1.0	1.3	5000.0	21.4	34.0	14.1	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:
254. 5.648 3 1.0 1.0 320.0 25.1 29.7 17.7 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X (3*LB

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION MAX CONC DIST TO TERRAIN

PROCEDURE	CONCENTRATION	TIME	UNIT
SIMPLE TERRAIN	5.648	254	0.

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

$$\text{Max 1hr impact} = 5.648 \text{ mg/m}^3$$

$$\text{Max 12hr impact} = (5.648)(0.6) = 3.4 \text{ ug/m}^3$$

$$\text{Max 24hr impact} = (5.648)(0.4) = 2.3 \text{ ug/m}^3$$

$$\frac{\text{AAC}}{(12 \text{ hr})} = \frac{40}{184} \cdot \frac{1}{50} \cdot \frac{1 \text{ mg}}{\text{m}^3} = 9.5 \times 10^{-2} \frac{\text{mg}}{\text{m}^3} \approx 9.5 \text{ ug/m}^3 \quad \boxed{\text{ok}}$$

$$\frac{\text{AAC}}{(24 \text{ hr})} = \frac{40}{168} \cdot \frac{1}{50} \cdot \frac{1 \text{ mg}}{\text{m}^3} = 4.8 \times 10^{-2} \frac{\text{mg}}{\text{m}^3} \approx 4.8 \text{ ug/m}^3 \quad \boxed{\text{ok}}$$

IMPACT OF EMISSIONS PASS SCREENING TEST
 NO TOXIC PROBLEM

$$\text{MAX 8hr} = (5.648)(0.7) = 4 \text{ ug/m}^3$$

$$\frac{\text{AAC}}{8 \text{ hr/d}} = \frac{40}{40} \cdot \frac{1}{50} \cdot 1 = 0.02 \frac{\text{mg}}{\text{m}^3} \approx 20 \text{ ug/m}^3 \quad \boxed{\text{ok}}$$