

TITLE: AUTO SPRAY COATING GO

\*\*\*\*\* STACK PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE: 1.0000 g/s 7.937 lb/hr  
 STACK HEIGHT: 7.30 meters 23.95 feet  
 STACK INNER DIAMETER: 0.864 meters 34.00 inches  
 PLUME EXIT TEMPERATURE: Ambient  
 PLUME EXIT VELOCITY: 9.669 m/s 31.72 ft/s  
 STACK AIR FLOW RATE: 12001 ACFM  
 RURAL OR URBAN: RURAL

FLAGPOLE RECEPTOR HEIGHT: 1.50 meters 4.92 feet  
 INITIAL PROBE DISTANCE = 100. meters 328. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING HEIGHT: 5.5 meters 18.0 feet  
 MAX BUILDING DIMENSION: 10.0 meters 32.8 feet  
 MIN BUILDING DIMENSION: 10.0 meters 32.8 feet  
 BUILDING ORIENTATION TO NORTH: 0. degrees  
 STACK DIRECTION FROM CENTER: 0. degrees  
 STACK DISTANCE FROM CENTER: 5.0 meters 16.4 feet

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*

25 meter receptor spacing: 1. meters - 100. meters

FLOW SECTOR	BUILD WIDTH	BUILD LENGTH	XBADJ	YBADJ	MAX 1-HR CONC	DIST (m)	TEMPORAL PERIOD
10*	11.58	11.58	-10.72	-0.87	2078.	50.0	WIN
20	12.82	12.82	-11.11	-1.71	2078.	50.0	WIN
30	13.66	13.66	-11.16	-2.50	2078.	50.0	WIN
40	14.09	14.09	-10.87	-3.21	2078.	50.0	WIN

50	14.09	14.09	-10.26	-3.83	2078.	50.0	WIN
60	13.66	13.66	-9.33	-4.33	2078.	50.0	WIN
70	12.82	12.82	-8.12	-4.70	2078.	50.0	WIN
80	11.58	11.58	-6.66	-4.92	2078.	50.0	WIN
90	10.00	10.00	-5.00	-5.00	2078.	50.0	WIN
100	11.58	11.58	-4.92	-4.92	2078.	50.0	WIN
110	12.82	12.82	-4.70	-4.70	2078.	50.0	WIN
120	13.66	13.66	-4.33	-4.33	2078.	50.0	WIN
130	14.09	14.09	-3.83	-3.83	2078.	50.0	WIN
140	14.09	14.09	-3.21	-3.21	2078.	50.0	WIN
150	13.66	13.66	-2.50	-2.50	2078.	50.0	WIN
160	12.82	12.82	-1.71	-1.71	2078.	50.0	WIN
170	11.58	11.58	-0.87	-0.87	2078.	50.0	WIN
180	10.00	10.00	0.00	0.00	2078.	50.0	WIN
190	11.58	11.58	-0.87	0.87	2078.	50.0	WIN
200	12.82	12.82	-1.71	1.71	2078.	50.0	WIN
210	13.66	13.66	-2.50	2.50	2078.	50.0	WIN
220	14.09	14.09	-3.21	3.21	2078.	50.0	WIN
230	14.09	14.09	-3.83	3.83	2078.	50.0	WIN
240	13.66	13.66	-4.33	4.33	2078.	50.0	WIN
250	12.82	12.82	-4.70	4.70	2078.	50.0	WIN
260	11.58	11.58	-4.92	4.92	2078.	50.0	WIN
270	10.00	10.00	-5.00	5.00	2078.	50.0	WIN
280	11.58	11.58	-6.66	4.92	2078.	50.0	WIN
290	12.82	12.82	-8.12	4.70	2078.	50.0	WIN
300	13.66	13.66	-9.33	4.33	2078.	50.0	WIN
310	14.09	14.09	-10.26	3.83	2078.	50.0	WIN
320	14.09	14.09	-10.87	3.21	2078.	50.0	WIN
330	13.66	13.66	-11.16	2.50	2078.	50.0	WIN
340	12.82	12.82	-11.11	1.71	2078.	50.0	WIN
350	11.58	11.58	-10.72	0.87	2078.	50.0	WIN
360	10.00	10.00	-10.00	0.00	2078.	50.0	WIN

\* = worst case flow sector

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
MINIMUM WIND SPEED: 0.5 m/s  
ANEMOMETER HEIGHT: 10.000 meters  
SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES  
DOMINANT SURFACE PROFILE: Urban  
DOMINANT CLIMATE TYPE: Average Moisture  
DOMINANT SEASON: Winter  
ALBEDO: 0.35  
BOWEN RATIO: 1.50  
ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

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YR MO DY JDY HR

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10 02 21 21 01

H0 U\* W\* DT/DZ ZICNV ZIMCH M-O LEN ZO BOWEN ALBEDO REF WS

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-3.68 0.087 -9.000 0.020 -999. 59. 17.0 1.000 1.50 0.35 1.00

HT REF TA HT

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10.0 310.0 2.0

ESTIMATED FINAL PLUME HEIGHT (non-downwash): 38.5 meters

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

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YR MO DY JDY HR

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10 04 16 21 01

H0 U\* W\* DT/DZ ZICNV ZIMCH M-O LEN Z0 BOWEN ALBEDO REF WS

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-64.00 0.843 -9.000 0.020 -999. 1781. 719.1 1.000 1.50 0.35 5.00

HT REF TA HT

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10.0 250.0 2.0

ESTIMATED FINAL PLUME HEIGHT (non-downwash): 13.2 meters

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*

OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

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MAXIMUM		MAXIMUM	
DIST	1-HR CONC	DIST	1-HR CONC
(m)	(ug/m3)	(m)	(ug/m3)
1.00	260.8	75.00	1760.
25.00	1846.	100.00	1403.
50.00	2078.		

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\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

	MAXIMUM	SCALED	SCALED	SCALED	SCALED
	1-HOUR	3-HOUR	8-HOUR	24-HOUR	ANNUAL
CALCULATION	CONC	CONC	CONC	CONC	CONC
PROCEDURE	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)
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FLAT TERRAIN	2083.	2083.	1875.	1250.	208.3

DISTANCE FROM SOURCE      48.00 meters directed toward 10 degrees  
 IMPACT AT THE

AMBIENT BOUNDARY    260.8      260.8      234.7      156.5      26.08

DISTANCE FROM SOURCE      1.00 meters directed toward 120 degrees