Air Quality Permitting
Technical Analysis

May 6, 2003

Permit to Construct No. P-030302

LeGrand Johnson Construction Co., Portable

AIRS Facility No. 777-00320

Prepared by:

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AIR QUALITY DIVISION

FINAL PERMIT

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Acronyms, Units, and Chemical Nomenclatures

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
Department	Department of Environmental Quality
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	Environmental Protection Agency
HAPs	Hazardous Air Pollutants
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
MACT	Maximum Achievable Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTE	Potential to Emit
Rules	*Rules for the Control of Air Pollution in Idaho*
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	sulfur oxides
TSP	Total Suspended Particulate
T/yr	Tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho,* for issuing permits to construct.

2. PROJECT DESCRIPTION

LeGrand Johnson Construction Co. (LJC) is proposing to construct a new hot mix asphalt (HMA) facility. The facility consists of a HMA plant, a primary generator, and a backup generator.

3. FACILITY DESCRIPTION

The facility is a portable drum-mix hot-mix asphalt plant used for the production of asphaltic concrete. The dryer burner is permitted to be fired on waste oil, fuel oil, natural gas, or propane gas. This facility is also permitted to operate a primary generator and a backup generator.

The Standard PTC will allow this hot-mix asphalt facility to collocate and simultaneously operate with one other portable plant (i.e., rock crusher, hot-mix asphalt plant, and/or concrete batch plant) in attainment areas. It is important to note that during collocated operations, this hot-mix asphalt plant is then part of a single, larger source engaged in the production of either asphalt, concrete and/or aggregate, depending upon which type of portable plant the hot-mix plant is collocated with. While collocated, the two portable plants are now considered to be one source, and the emissions of this single source is the sum of the emissions from the two portable plants. This single, larger source must comply with all applicable federal, state, and local requirements. To maintain compliance, specific requirements and limitations have been included in the Standard PTC for this hot-mix asphalt plant for collocated operations. As described in the following sections of this Technical Memorandum, specific conservative assumptions and calculations were made to determine these standard PTC collocation requirements. For this reason, the permit for the other portable plant with which this hot-mix asphalt plant will collocate must also contain specific collocation requirements based on the same conservative assumptions and calculations used in this standard PTC.

4. SUMMARY OF EVENTS

February 24, 2003	The Department received a PTC application from LJC.
March 21, 2003	The application was determined complete

5. TECHNICAL ANALYSIS

Equipment Listing

Portable Hot-Mix Asphalt Plant

Manufacturer/Model	-	Gencor/Ultra II
Type	-	Drum-Mix
Throughput Capacity (T/hr)	-	550
Burner Fuel Type	-	Waste Oil, #2 Fuel Oil

Air Pollution Control Device

Type	-	Baghouse

HMA Stack Information

Stack Height (ft)	-	32.5
Stack Diameter (ft)	-	4.67
Exhaust Gas Flowrate (acfm)	-	70,534
Stack Exhaust Temp (°F)	-	275

Primary Generator

Manufacturer/Model	-	Caterpillar 3512
Rated Power Output (kW)	-	1135
Fuel Type (gasoline/diesel)	-	diesel
MMBtu/hr	-	11.4
Stack Height (ft)	-	12
Stack Diameter (ft)	-	0.833
Exhaust Gas Flowrate (acfm)	-	5,890
Stack Exhaust Temp (°F)	-	929

Backup Generator

Manufacturer/Model	-	Caterpillar 3304
Rated Power Output (kW)	-	100
Fuel Type (gasoline/diesel)	-	diesel
Stack Height (ft)	-	8
Stack Diameter (ft)	-	0.4167
Exhaust Gas Flowrate (acfm)	-	1,718
Stack Exhaust Temp (°F)	-	905

Emission Estimates

Emissions were estimated by the applicant using AP-42 emissions factors for HMA plants and diesel fired generators. The emissions estimate was reviewed by Department staff and determined to follow the Department's emissions estimating procedures for HMA plants. The facility requested 12 hours per day, and 1,365 hours per year from the HMA plant. The facility requested 12 hours per day and 1,800 hours per year for the primary generator and up to 1,800 hours per year for the backup generator. Emissions of formaldehyde exceed the screening emissions limit and the uncontrolled AACC. The annual emissions of formaldehyde are limited to 1.00 T/yr from the HMA plant. This limit keeps the facility within the AACC for formaldehyde. The formaldehyde emissions from the generators are less than the applicable screening emissions level. The following table is a summary of the hourly and annual estimated emissions from the HMA facility.

Table 1.1 EMISSION ESTIMATES

LeGrand Johnson Construction Co. Emissions Estimate										
	PM10		NOx		SO2		CO		Formaldehyde	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
HMA Plant	10.925	7.46	26.125	17.83	5.225	3.57	61.75	42.14	1.473	1.00
Primary Generator	0.65	0.59	19.79	17.81	0.61	0.55	8.37	7.53	8.99e-4	0.001
Backup Generator	0.29	0.26	4.14	3.72	0.27	0.25	0.89	0.80	1.18e-3	1.10e-3
Total	--	8.31	--	39.36	--	4.36	--	50.48	--	1.01

This facility is allowed to operate in all areas within Idaho. The facility may collocate with one other source specifically allowed to collocate with no changes to the hours of operation. The annual production of the HMA plant is limited to 633,248 T/yr. The annual emissions from this facility are limited to less than half of the major threshold. Therefore, when operating with a source specifically allowed to collocate the total emissions will be less than the major threshold. A summary of the emissions estimate is included in the appendix. See the application materials for a detailed description of the emissions estimate.

Modeling

The applicant conducted modeling using the EPA approved Screen3 model The maximum impacts from all three sources and the conservative statewide background concentrations were summed and compared to the NAAQS. For collocated operations, the impacts were compared to half of the difference between the NAAQS and the statewide background concentrations. The modeled emissions at the production rates requested by the applicant were less than half of this difference. The PM_{10} concentration at 12 hours per day were above the 24-hour significant impact for PM_{10}. Therefore the hours of operation of the generator were limited to 6.8 hours per day and the throughput of the asphalt plant limited to 3,261 T/day when located in a PM_{10} nonattainment area. In addition, the facility may only operate one of the generators at a time when located in a PM_{10} nonattainment area. Copies of the modeling output files are included in the appendix.

Facility Classification

This facility is classified as a synthetic minor (SM) source because federally enforceable limits keep the facility's potential emissions of NO_X and CO below 100 tons per year.

Area Classification

This facility is permitted to operate in all areas within the state of Idaho.

6. PERMIT REQUIREMENTS

Regulatory Review

The following rules and regulations were reviewed for this permit analysis:

IDAPA 58.01.01.201	Permit to Construct
IDAPA 58.01.01.202	Application Procedures
IDAPA 58.01.01.203	Permit Requirements for New and Modified Stationary Sources
IDAPA 58.01.01.209	Procedures for Issuing Permits
IDAPA 58.01.01.211	Conditions for Permits to Construct
IDAPA 58.01.01.212	Obligation to Comply
IDAPA 58.01.01.577	Ambient Air Quality Standards
IDAPA 58.01.01.625	Visible Emissions
IDAPA 58.01.01.650	Rules for Control of Fugitive Dust
IDAPA 58.01.01.725	Rules for Sulfur Content of Fuels
IDAPA 58.01.01.805	Rules for the Control of Hot-Mix Asphalt Plants

This facility is an affected facility and is subject to regulation in accordance with 40 CFR Part 60, Subpart 1, "Standards of Performance for Hot-Mix Asphalt Facilities."

Hot-Mix Asphalt Plant

7.1 Emissions Limits

The emissions from the HMA plant are limited to the estimated emissions submitted by the applicant. The PM emissions are limited to 0.04 gr/dscf in accordance with 40 CFR 60 Subpart I. Visible emissions from the HMA stack must be less than 20% opacity in accordance with 40 CFR 60 Subpart I. Emissions of PM_{10}, NO_X, SO_2, CO and formaldehyde are limited as well.

7.2 Compliance Demonstration

The facility will show compliance with these emissions limits by monitoring the daily and monthly throughput of asphalt, and by conducting a source test for particulate matter in accordance with 40 CFR 60.8. The daily throughput of the asphalt facility is limited to 5,700 tons of asphalt per day and 633,248 T/yr when located in attainment or unclassifiable areas. The daily throughput of the asphalt facility is limited to 3,261 tons per day and 633,248 T/yr when located in any PM_{10} nonattainment area or proposed PM_{10} nonattainment area. The permittee must conduct a visible emissions evaluation of the HMA stack within 15 days of initial startup and within 15 days of startup after relocation. Compliance with these conditions assures that the facility does not exceed any of the permitted emissions limits.

Primary Electrical Generator

7.3 Emissions Limits

Emissions from the primary generator are limited to the estimated emissions submitted by the applicant.

7.4 Compliance Demonstration

The facility will show compliance with these emissions limits by monitoring the hours of operation of the generator on a daily and monthly basis. The hours of operation are limited to 12 hours per day and 1,800 hours per year when located in attainment or unclassifiable areas. The hours of operation are limited to 6.8 hours per day when located in any PM_{10} nonattainment area or proposed PM_{10} nonattainment area.

Backup Generator

7.5 Emissions Limits

Emissions from the backup generator are not limited in this permit because they are less than 10% of the significant rates. The backup generator is limited to 12 hours per day and 1,800 hours per year. The facility must monitor the daily and monthly hours of operation of the backup generator.

7. AIRS INFORMATION

Table 7.1 AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

AIR PROGRAM / POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION A – Attainment U – Unclassifiable N – Nonattainment
SO_2	B						Portable
NO_x	SM					SM	Portable
CO	SM					SM	Portable
PM_{10}	B						Portable
PT (Particulate)	B		B				Portable
VOC	B						Portable
THAP (Total HAPs)	B						Portable
			APPLICABLE SUBPART				
			I				

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

8. FEES

LJC paid the $1,000 application fee as required in IDAPA 58.01.01.224 on March 7, 2003. A permit to construct processing fee of $500 was required in accordance with IDAPA 58.01.01.225 for a standard permit to construct. The processing fee was received on March 7, 2003.

The LJC facility is not a major facility as defined in IDAPA 58.01.01.008.10. Therefore, registration fees are not applicable in accordance with IDAPA 58.01.01.387.

9. RECOMMENDATION

Based on review of application materials and all applicable state and federal rules and regulations, staff recommend that LJC be issued PTC No. 030302 for the hot-mix asphalt plant. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

DH/sd Permit No. P-030302

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APPENDIX

Emissions Estimate
Screen3 Modeling Output

LeGrand Johnson Construction Co. Modeled Concentrations and Allowable Operating Parameters

				PM10			NOx		SO2				CO		Formaldehyde		Lead	
	Hours per Day	Hours per Quarter	Hours per Year	1-Hour (ug/m³)	24-Hour (ug/m³)	Annual (ug/m³)	1-Hour (ug/m³)	Annual (ug/m³)	1-Hour (ug/m³)	3-Hour (ug/m³)	24-Hour (ug/m³)	Annual (ug/m³)	1-Hour (ug/m³)	8-Hour (ug/m³)	1-Hour (ug/m³)	Annual (ug/m³)	1-Hour (ug/m³)	Quarterly (ug/m³)
HMA Plant	12	1365	1365	17.440	3.488	0.217	41.700	0.520	8.341	7.507	1.668	0.104	98.580	69.006	2.351	0.046	0.011	0.001
Main Genset	12	1800	1800	9.863	1.973	0.162	300.100	4.933	9.256	8.330	1.851	0.152	127.000	88.900	9.549	0.245		
Backup Genset	12	1800	1800	16.400	3.280	0.270	235.200	3.866	15.270	13.743	3.054	0.251	50.890	35.623	3.121	0.080		
Total					8.741	0.649		9.319		29.580	6.573	0.507	276.470	193.529		0.371		0.001
Background					100	34		40		372	122	10	13800	4600				0.08
Total Impact					108.741	34.649		49.319		401.580	128.573	10.507	14076.470	4793.529				0.081
Significant Contribution (PM10 and CO)					5	1							2000	500				
NAAQS Limit					150	50		100		1300	365	80	40000	10000				1.5
Available Impact					50	16		60		928	243	70	26200	5400				
Available Impact when Collocated					25	8		30		464	121.5	35	13100	2700				
Exceed Limit					No	No		No		No	No	No	No	No				
Exceed Collocation Limit					No	No		No		No	No	No	No	No				

TAPS Limit (Short Term Source) 0.77

Exceed Limit No

Allowable Hours in PM10 Nonattainment Area 6.86

Allowable Production Rates (Tons)	**Daily**	**Yearly**
	5700	633248
PM10 NonAttainment Area Limit (Ton)	3261	633248

Emissions Factors and Estimated Annual Emissions					
HMA Plant	T/hr	475			
Main Genset	MMBtu/hr	11.4			
	HP	1522			
Backup Genset	MMBtu/hr	1.004			
	HP	134.07			
Emissions Rates (lb/hr)	PM10	NOx	SO2	CO	Formaldehyde
HMA Plant	10.925	26.125	5.225	61.750	1.47
Main Genset	0.653	19.786	0.609	8.371	0.0009
Backup Genset	0.294	4.139	0.274	0.892	0.0012
Emissions Factor					
HMA Plant (AP-42)	0.023	0.055	0.011	0.130	0.0031
Large Generator lb/mmBtu (AP-42)	0.057				0.0000789
Large Generator lb/HP-hr (AP-42)		0.013	0.0004	0.0055	
Small Generator lb/MMBtu (AP-42)					1.18E-03
Small Generator lb/HP-hr (AP-42)	0.0022	0.031	0.00205	0.00668	
HMA Emissions	7.46	17.83	3.57	42.14	1.00
Primary Generator Emissions	0.59	17.81	0.55	7.53	0.00
Backup Generator Emissions	0.26	3.72	0.25	0.80	0.00107
Total Emissions	8.31	39.36	4.36	49.50	1.01
Uncontrolled Potential Emissions	47.85	114.43	22.89	270.47	6.45

03/23/03
21:42:01

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Legrand Johnson HMA Plant NOx

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	3.29175
STACK HEIGHT (M)	=	9.9061
STK INSIDE DIAM (M)	=	1.4224
STK EXIT VELOCITY (M/S)	=	21.0310
STK GAS EXIT TEMP (K)	=	408.1500
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 29.430 M**4/S**3; MOM. FLUX = 160.602 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)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	280.62	4.28	4.27	NO
100.	.9470	6	1.0	1.0	10000.0	86.06	22.13	21.88	NO
200.	16.18	4	20.0	20.0	6400.0	22.17	15.75	8.84	NO
300.	38.10	4	20.0	20.0	6400.0	22.17	22.83	12.50	NO
400.	41.58	4	20.0	20.0	6400.0	22.17	29.70	15.74	NO
500.	38.17	4	20.0	20.0	6400.0	22.17	36.35	18.70	NO
600.	33.40	4	20.0	20.0	6400.0	22.17	42.89	21.56	NO
700.	30.49	4	15.0	15.0	4800.0	27.68	49.46	24.58	NO
800.	27.79	4	10.0	10.0	3200.0	36.98	56.11	27.88	NO
900.	26.40	4	10.0	10.0	3200.0	36.98	62.36	30.46	NO
1000.	24.72	4	10.0	10.0	3200.0	36.98	68.56	33.01	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

381.	41.70	4	20.0	20.0	6400.0	22.17	28.48	15.17	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

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	.9377	6	1.0	1.0	10000.0	86.06	22.07	21.86	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
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CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	41.70	381.	0.

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**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
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03/23/03
21:44:47

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 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson HMA Plant Lead

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .897750E-03
   STACK HEIGHT (M)       =       9.9061
   STK INSIDE DIAM (M)    =       1.4224
   STK EXIT VELOCITY (M/S)=      21.0310
   STK GAS EXIT TEMP (K)  =     408.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =   29.430 M**4/S**3;  MOM. FLUX =  160.602 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)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	280.62	4.28	4.27	NO
100.	.2583E-03	6	1.0	1.0	10000.0	86.06	22.13	21.88	NO
200.	.4413E-02	4	20.0	20.0	6400.0	22.17	15.75	8.84	NO
300.	.1039E-01	4	20.0	20.0	6400.0	22.17	22.83	12.50	NO
400.	.1134E-01	4	20.0	20.0	6400.0	22.17	29.70	15.74	NO
500.	.1041E-01	4	20.0	20.0	6400.0	22.17	36.35	18.70	NO
600.	.9108E-02	4	20.0	20.0	6400.0	22.17	42.89	21.56	NO
700.	.8314E-02	4	15.0	15.0	4800.0	27.68	49.46	24.58	NO
800.	.7580E-02	4	10.0	10.0	3200.0	36.98	56.11	27.88	NO
900.	.7200E-02	4	10.0	10.0	3200.0	36.98	62.36	30.46	NO
1000.	.6742E-02	4	10.0	10.0	3200.0	36.98	68.56	33.01	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

381.	.1137E-01	4	20.0	20.0	6400.0	22.17	28.48	15.17	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
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DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	.2557E-03	6	1.0	1.0	10000.0	86.06	22.07	21.86	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	.1137E-01	381.	0.

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**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
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03/23/03
20:01:33

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Legrand Johnson HMA Plant Formaldehyde

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.185535
STACK HEIGHT (M)	=	9.9061
STK INSIDE DIAM (M)	=	1.4224
STK EXIT VELOCITY (M/S)	=	21.0310
STK GAS EXIT TEMP (K)	=	408.1500
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 29.430 M**4/S**3; MOM. FLUX = 160.602 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)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	280.62	4.28	4.27	NO
100.	.5338E-01	6	1.0	1.0	10000.0	86.06	22.13	21.88	NO
200.	.9120	4	20.0	20.0	6400.0	22.17	15.75	8.84	NO
300.	2.148	4	20.0	20.0	6400.0	22.17	22.83	12.50	NO
400.	2.344	4	20.0	20.0	6400.0	22.17	29.70	15.74	NO
500.	2.152	4	20.0	20.0	6400.0	22.17	36.35	18.70	NO
600.	1.882	4	20.0	20.0	6400.0	22.17	42.89	21.56	NO
700.	1.718	4	15.0	15.0	4800.0	27.68	49.46	24.58	NO
800.	1.567	4	10.0	10.0	3200.0	36.98	56.11	27.88	NO
900.	1.488	4	10.0	10.0	3200.0	36.98	62.36	30.46	NO
1000.	1.393	4	10.0	10.0	3200.0	36.98	68.56	33.01	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

381.	2.351	4	20.0	20.0	6400.0	22.17	28.48	15.17	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

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**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************
```

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	.5285E-01	6	1.0	1.0	10000.0	86.06	22.07	21.86	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	2.351	381.	0.

```
**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
```

03/23/03
21:39:28

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Legrand Johnson HMA Plant CO

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	7.78050
STACK HEIGHT (M)	=	9.9061
STK INSIDE DIAM (M)	=	1.4224
STK EXIT VELOCITY (M/S)	=	21.0310
STK GAS EXIT TEMP (K)	=	408.1500
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 29.430 M**4/S**3; MOM. FLUX = 160.602 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)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	280.62	4.28	4.27	NO
100.	2.238	6	1.0	1.0	10000.0	86.06	22.13	21.88	NO
200.	38.25	4	20.0	20.0	6400.0	22.17	15.75	8.84	NO
300.	90.06	4	20.0	20.0	6400.0	22.17	22.83	12.50	NO
400.	98.28	4	20.0	20.0	6400.0	22.17	29.70	15.74	NO
500.	90.23	4	20.0	20.0	6400.0	22.17	36.35	18.70	NO
600.	78.94	4	20.0	20.0	6400.0	22.17	42.89	21.56	NO
700.	72.06	4	15.0	15.0	4800.0	27.68	49.46	24.58	NO
800.	65.69	4	10.0	10.0	3200.0	36.98	56.11	27.88	NO
900.	62.40	4	10.0	10.0	3200.0	36.98	62.36	30.46	NO
1000.	58.43	4	10.0	10.0	3200.0	36.98	68.56	33.01	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

381.	98.58	4	20.0	20.0	6400.0	22.17	28.48	15.17	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

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**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************
```

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	2.216	6	1.0	1.0	10000.0	86.06	22.07	21.86	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	98.58	381.	0.

```
**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
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03/23/03
21:40:52

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson HMA Plant SO2

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .658350
   STACK HEIGHT (M)       =       9.9061
   STK INSIDE DIAM (M)    =       1.4224
   STK EXIT VELOCITY (M/S)=      21.0310
   STK GAS EXIT TEMP (K)  =     408.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =   29.430 M**4/S**3;  MOM. FLUX =  160.602 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)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	280.62	4.28	4.27	NO
100.	.1894	6	1.0	1.0	10000.0	86.06	22.13	21.88	NO
200.	3.236	4	20.0	20.0	6400.0	22.17	15.75	8.84	NO
300.	7.621	4	20.0	20.0	6400.0	22.17	22.83	12.50	NO
400.	8.316	4	20.0	20.0	6400.0	22.17	29.70	15.74	NO
500.	7.635	4	20.0	20.0	6400.0	22.17	36.35	18.70	NO
600.	6.679	4	20.0	20.0	6400.0	22.17	42.89	21.56	NO
700.	6.097	4	15.0	15.0	4800.0	27.68	49.46	24.58	NO
800.	5.559	4	10.0	10.0	3200.0	36.98	56.11	27.88	NO
900.	5.280	4	10.0	10.0	3200.0	36.98	62.36	30.46	NO
1000.	4.944	4	10.0	10.0	3200.0	36.98	68.56	33.01	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

381.	8.341	4	20.0	20.0	6400.0	22.17	28.48	15.17	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
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DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

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**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************
```

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	.1875	6	1.0	1.0	10000.0	86.06	22.07	21.86	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	8.341	381.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

03/23/03
21:05:42

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Legrand Johnson HMA Plant PM10

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	1.37655
STACK HEIGHT (M)	=	9.9061
STK INSIDE DIAM (M)	=	1.4224
STK EXIT VELOCITY (M/S)	=	21.0310
STK GAS EXIT TEMP (K)	=	408.1500
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 29.430 M**4/S**3; MOM. FLUX = 160.602 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)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	1	1.0	1.0	320.0	280.62	4.28	4.27	NO
100.	.3960	6	1.0	1.0	10000.0	86.06	22.13	21.88	NO
200.	6.767	4	20.0	20.0	6400.0	22.17	15.75	8.84	NO
300.	15.93	4	20.0	20.0	6400.0	22.17	22.83	12.50	NO
400.	17.39	4	20.0	20.0	6400.0	22.17	29.70	15.74	NO
500.	15.96	4	20.0	20.0	6400.0	22.17	36.35	18.70	NO
600.	13.97	4	20.0	20.0	6400.0	22.17	42.89	21.56	NO
700.	12.75	4	15.0	15.0	4800.0	27.68	49.46	24.58	NO
800.	11.62	4	10.0	10.0	3200.0	36.98	56.11	27.88	NO
900.	11.04	4	10.0	10.0	3200.0	36.98	62.36	30.46	NO
1000.	10.34	4	10.0	10.0	3200.0	36.98	68.56	33.01	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

381.	17.44	4	20.0	20.0	6400.0	22.17	28.48	15.17	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

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**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************
```

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	.3921	6	1.0	1.0	10000.0	86.06	22.07	21.86	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

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*************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
*************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	17.44	381.	0.

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**************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
**************************************************
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03/23/03
20:45:39

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Main Genset SO2

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .768600E-01
   STACK HEIGHT (M)       =       3.6580
   STK INSIDE DIAM (M)    =        .2540
   STK EXIT VELOCITY (M/S)=      54.8650
   STK GAS EXIT TEMP (K)  =     771.5000
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    5.382 M**4/S**3;  MOM. FLUX =   18.439 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC             U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)   HT (M)   Y (M)   Z (M)  DWASH
 -------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.    .0000       1     1.0    1.0   320.0   79.36    2.22    2.19    NO
   100.    9.094       4    20.0   20.0  6400.0    7.44    8.25    4.73    NO
   200.    7.822       4    10.0   10.0  3200.0   11.23   15.71    8.77    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   111.    9.256       4    20.0   20.0  6400.0    7.44    9.16    5.22    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

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	8.576	4	20.0	20.0	6400.0	7.44	7.48	4.32	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	9.256	111.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
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03/23/03
20:44:45

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Main Genset PM10

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .819000E-01
   STACK HEIGHT (M)       =       3.6580
   STK INSIDE DIAM (M)    =        .2540
   STK EXIT VELOCITY (M/S)=      54.8650
   STK GAS EXIT TEMP (K)  =     771.5000
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    5.382 M**4/S**3;  MOM. FLUX =   18.439 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)   HT (M)   Y (M)   Z (M)  DWASH
 -------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.    .0000       1     1.0    1.0   320.0   79.36    2.22    2.19    NO
   100.    9.690       4    20.0   20.0  6400.0    7.44    8.25    4.73    NO
   200.    8.335       4    10.0   10.0  3200.0   11.23   15.71    8.77    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   111.    9.863       4    20.0   20.0  6400.0    7.44    9.16    5.22    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

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	9.138	4	20.0	20.0	6400.0	7.44	7.48	4.32	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	9.863	111.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

03/23/03
20:43:45

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Main Genset NOx

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      2.49228
   STACK HEIGHT (M)       =       3.6580
   STK INSIDE DIAM (M)    =        .2540
   STK EXIT VELOCITY (M/S)=      54.8650
   STK GAS EXIT TEMP (K)  =     771.5000
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    5.382 M**4/S**3;  MOM. FLUX =   18.439 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
-------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.   .0000        1     1.0    1.0   320.0   79.36    2.22    2.19    NO
   100.   294.9        4    20.0   20.0  6400.0    7.44    8.25    4.73    NO
   200.   253.6        4    10.0   10.0  3200.0   11.23   15.71    8.77    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   111.   300.1        4    20.0   20.0  6400.0    7.44    9.16    5.22    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

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	278.1	4	20.0	20.0	6400.0	7.44	7.48	4.32	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 PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	300.1	111.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

03/23/03
19:41:54

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Main Genset Formaldehyde

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .792900E-01
   STACK HEIGHT (M)       =       3.6580
   STK INSIDE DIAM (M)    =        .2540
   STK EXIT VELOCITY (M/S)=      54.8650
   STK GAS EXIT TEMP (K)  =     771.5000
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    5.382 M**4/S**3;  MOM. FLUX =   18.439 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
-------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.   .0000        1     1.0    1.0   320.0   79.36    2.22    2.19    NO
   100.   9.381        4    20.0   20.0  6400.0    7.44    8.25    4.73    NO
   200.   8.070        4    10.0   10.0  3200.0   11.23   15.71    8.77    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   111.   9.549        4    20.0   20.0  6400.0    7.44    9.16    5.22    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

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	8.847	4	20.0	20.0	6400.0	7.44	7.48	4.32	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 PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	9.549	111.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

03/23/03
20:42:27

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Main Genset CO

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      1.05462
   STACK HEIGHT (M)       =       3.6580
   STK INSIDE DIAM (M)    =        .2540
   STK EXIT VELOCITY (M/S)=      54.8650
   STK GAS EXIT TEMP (K)  =     771.5000
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    5.382 M**4/S**3;  MOM. FLUX =   18.439 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
 -------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.    .0000       1     1.0    1.0   320.0   79.36    2.22    2.19    NO
   100.    124.8       4    20.0   20.0  6400.0    7.44    8.25    4.73    NO
   200.    107.3       4    10.0   10.0  3200.0   11.23   15.71    8.77    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   111.    127.0       4    20.0   20.0  6400.0    7.44    9.16    5.22    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

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	117.7	4	20.0	20.0	6400.0	7.44	7.48	4.32	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 PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	127.0	111.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
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03/23/03
21:01:09

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Backup Genset SO2

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .340200E-01
   STACK HEIGHT (M)       =       2.4380
   STK INSIDE DIAM (M)    =        .1270
   STK EXIT VELOCITY (M/S)=      64.0000
   STK GAS EXIT TEMP (K)  =     758.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    1.553 M**4/S**3;  MOM. FLUX =    6.383 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
-------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.   .0000        1     1.0    1.0   320.0   32.24    1.60    1.55    NO
   100.   14.90        4     8.0    8.0  2560.0    6.16    8.27    4.77    NO
   200.   10.41        4     4.0    4.0  1280.0    9.89   15.71    8.76    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    47.   16.52        3    10.0   10.0  3200.0    5.42    6.35    3.87    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

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	15.27	4	8.0	8.0	2560.0	6.16	7.51	4.38	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 PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	16.52	47.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

03/23/03
20:59:52

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Backup Genset PM10

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .365400E-01
   STACK HEIGHT (M)       =       2.4380
   STK INSIDE DIAM (M)    =        .1270
   STK EXIT VELOCITY (M/S)=      64.0000
   STK GAS EXIT TEMP (K)  =     758.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    1.553 M**4/S**3;  MOM. FLUX =    6.383 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
-------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.   .0000        1     1.0    1.0   320.0   32.24    1.60    1.55    NO
   100.   16.00        4     8.0    8.0  2560.0    6.16    8.27    4.77    NO
   200.   11.18        4     4.0    4.0  1280.0    9.89   15.71    8.76    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    47.   17.74        3    10.0   10.0  3200.0    5.42    6.35    3.87    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

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	16.40	4	8.0	8.0	2560.0	6.16	7.51	4.38	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 PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	17.74	47.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
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03/23/03
21:03:23

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Backup Genset NOx

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .524160
   STACK HEIGHT (M)       =       2.4380
   STK INSIDE DIAM (M)    =        .1270
   STK EXIT VELOCITY (M/S)=      64.0000
   STK GAS EXIT TEMP (K)  =     758.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    1.553 M**4/S**3;  MOM. FLUX =    6.383 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
 -------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.    .0000       1     1.0    1.0   320.0   32.24    1.60    1.55    NO
   100.    229.5       4     8.0    8.0  2560.0    6.16    8.27    4.77    NO
   200.    160.3       4     4.0    4.0  1280.0    9.89   15.71    8.76    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    47.    254.5       3    10.0   10.0  3200.0    5.42    6.35    3.87    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

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	235.2	4	8.0	8.0	2560.0	6.16	7.51	4.38	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	254.5	47.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

03/23/03
19:48:14

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Backup Genset Formaldehyde

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .695520E-02
   STACK HEIGHT (M)       =       2.4380
   STK INSIDE DIAM (M)    =        .1270
   STK EXIT VELOCITY (M/S)=      64.0000
   STK GAS EXIT TEMP (K)  =     758.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    1.553 M**4/S**3;  MOM. FLUX =    6.383 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
 -------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.    .0000       1     1.0    1.0   320.0   32.24    1.60    1.55    NO
   100.    3.045       4     8.0    8.0  2560.0    6.16    8.27    4.77    NO
   200.    2.127       4     4.0    4.0  1280.0    9.89   15.71    8.76    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    47.    3.377       3    10.0   10.0  3200.0    5.42    6.35    3.87    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

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

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

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	3.121	4	8.0	8.0	2560.0	6.16	7.51	4.38	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
****************************************
```

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	3.377	47.	0.

```
***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
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03/23/03
21:04:35

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Legrand Johnson Backup Genset CO

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE            =        POINT
   EMISSION RATE (G/S)    =      .113400
   STACK HEIGHT (M)       =       2.4380
   STK INSIDE DIAM (M)    =        .1270
   STK EXIT VELOCITY (M/S)=      64.0000
   STK GAS EXIT TEMP (K)  =     758.1500
   AMBIENT AIR TEMP (K)   =     293.0000
   RECEPTOR HEIGHT (M)    =        .0000
   URBAN/RURAL OPTION     =        RURAL
   BUILDING HEIGHT (M)    =        .0000
   MIN HORIZ BLDG DIM (M) =        .0000
   MAX HORIZ BLDG DIM (M) =        .0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


BUOY. FLUX =    1.553 M**4/S**3;  MOM. FLUX =    6.383 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

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

  DIST     CONC              U10M   USTK  MIX HT   PLUME   SIGMA   SIGMA
   (M)   (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   Y (M)   Z (M)  DWASH
-------  ----------  ----  -----  -----  ------  ------  ------  ------  -----
     1.   .0000        1     1.0    1.0   320.0   32.24    1.60    1.55    NO
   100.   49.65        4     8.0    8.0  2560.0    6.16    8.27    4.77    NO
   200.   34.68        4     4.0    4.0  1280.0    9.89   15.71    8.76    NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    47.   55.06        3    10.0   10.0  3200.0    5.42    6.35    3.87    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

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
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DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
90.	50.89	4	8.0	8.0	2560.0	6.16	7.51	4.38	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

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****************************************
*** SUMMARY OF SCREEN MODEL RESULTS ***
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CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	55.06	47.	0.

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** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
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