

PROCESS DESCRIPTION

This permit to install encompasses the equipment used for a portable batch mix asphalt plant of 270 tons per hour maximum rated capacity. This is an existing stationary (installed and operated before the PTI system) plant that is being permitted as a portable plant with Federally enforceable limits to avoid Title V. The old premise number is 1677040001 P901. This source predates the PTI system.

B.A.T. DETERMINATION

P929 Asphalt plant: NSPS Subpart I §60.92(a)(1), "no owner or operator .. shall discharge .. particulate matter in excess of 90 mg/dscm (0.04 gr/dscf)." and NSPS Subpart I §60.92(a)(2), "exhibit 20 percent opacity, or greater". SO₂ is restricted by a BAT limit of 0.8% sulfur content in the #4, 1.0% sulfur content in the #5 fuel 1.0% sulfur content in the #6 fuel, 0.5% sulfur content in the used oil and 0.5% sulfur content in the #2 fuel. In addition to the sulfur in the coal restriction, BAT for SO₂ is also restricted by AP-42. BAT for NOx, CO, and VOC is good operating practice and AP-42 emission factors.

APPLICABLE RULES & REGULATIONS

| | |
|----------------|--|
| 3745-31-05 | BAT |
| 3745-17-07 | Control of visible particulate emissions from stationary sources |
| 3745-17-08 | Restriction of emission of fugitive dust |
| 3745-17-11 | Restrictions on particulate emissions from industrial processes |
| 3745-18-06 | Sulfur Dioxide emission limits |
| 3745-21-07 | Control of emissions of organic materials (VOC) |
| 3745-21-08 | Control of Carbon Monoxide emissions |
| NSPS Subpart I | Standards of Performance For Asphalt Concrete Plants |

CALCULATIONS

POTENTIAL TO EMIT

P929 Batch asphalt plant

PTE will be the same as the permit allowable from NSPS subpart I of 0.04 gr/dscf

From AP-42, Table 11.1-7 (1/95). "Emission factors for Batch Mix Hot Asphalt Plants: For a production rate of 270 ton/hr, 8760 hours per year and using the highest emission factor:

| Pollutant | capacity, tons/hr | EF, lb/ton | Hours per yr | ER, tons/yr | ER, lbs/hr |
|-----------|-------------------|------------|--------------|-------------|------------|
| CO | 270 | 0.34 | 8760 | 402.08 | 91.8 |
| NOx | 270 | 0.17 | 8760 | 201.04 | 45.9 |
| SO2 | 270 | 0.24 | 8760 | 283.82 | 64.8 |
| VOC | 270 | 0.046 | 8760 | 54.40 | 12.42 |

Permit Allowable Emissions

Permit Allowable emission calculations are based on a federally enforceable restriction of 580,000 tons per year processed. Restrictions for the batch plant will be made federally enforceable.

Due to the high unrestricted annual emission tonnage, Stoneco has requested a federally enforceable permit restriction of 580,000 tons/yr. With this restriction, their new PTE limits will also be their permit allowable limits, except in the case of TSP emissions. The permit allowable TSP emissions will be set according to NSPS subpart I, 40 CFR 60.90. Federal requirements dictate a rolling 12-month summation to avoid triggering PSD in non-attainment areas.

P929 Batch asphalt plant

TSP- Federal requirements: These emissions are regulated by the federally enforceable NSPS limitation of a maximum particulate discharge concentration of 90 mg/dscm (0.04 gr/dscf).

Given a submitted discharge flow rate of 35,000 acfm at 300°F, and assuming sea level and a worse case situation of a bone dry air basis:

$$\begin{aligned} \text{Allowable rate}_{\text{TSP}} &= \mathbf{0.04 \text{ gr/dscf}} (1 \text{ lb}/7000 \text{ gr})(35,000 \text{ acf}/\text{min})(60 \\ &\quad \text{min}/\text{hr})(528^\circ \text{R} \div (300^\circ \text{F} + 460^\circ \text{R})) \\ &= 8.34 \text{ lb TSP}/\text{hr} (8760 \text{ hrs}/\text{yr})/2000 \text{ pounds per ton} \\ &= 36.5 \text{ ton TSP}/\text{yr} * \end{aligned}$$

PM10 From AP-42 11.1-6 32 % of TSP is PM10.

$$\begin{aligned} 8.34 \text{ lbs}/\text{hr} (0.32) &= 2.67 \text{ lbs}/\text{hr} \\ 36.5 \text{ ton}/\text{yr} (0.32) &= 11.7 \text{ tons}/\text{yr} \end{aligned}$$

* The company is requesting a limit of **12.5 tons** TSP emissions per year and **4 tons** PM10 emissions per year.

From AP-42, Table 11.1-7 (1/95). "Emission factors for Batch Mix Hot Asphalt Plants: For a production rate of 270 ton/hr, 580,000 ton/yr and using the highest emission factor:

| Pollutant | capacity, tons/yr | EF, lb/ton | ER, tons/yr | trigger for modeling |
|-------------|-------------------|------------|--------------|----------------------|
| CO | 580000 | 0.34 | 98.6 | 100 |
| NOx | 580000 | 0.17 | 49.3 | **25 |
| *SO2 | 580000 | 0.14 | 41.73 | **25 |
| VOC | 580000 | 0.046 | 13.34 | 40 |

* The company requested a limit of **38.85** pounds per hour. The 0.14 EF was derived from 38.85 lb/hr divided by 270 tons/hour. They will have to stack test for SO2 to demonstrate they can meet the lower emission factor.

** **Modeling in screens3 has passed for these pollutants.**

ACTUAL EMISSIONS

P929 Actual emissions for this source are estimated using an annual throughput of 60,000 tons:

| Pollutant | capacity, tons/yr | EF, lb/ton | ER, tons/yr |
|-----------|-------------------|------------|-------------|
| PM | 60000 | 0.04 | 1.2 |
| PM10 | 60000 | 0.016 | 0.48 |
| CO | 60000 | 0.34 | 10.2 |
| NOx | 60000 | 0.17 | 5.1 |
| *SO2 | 60000 | 0.14 | 4.2 |
| VOC | 60000 | 0.046 | 1.38 |

From AP-42, Tables 11.1-2 & 11.1-7 (1/95). "Emission factors for Batch Mix Hot Asphalt Plants"

*EF estimated, to be verified through stack testing

For PTI net increase used last 2 years actual emissions average for pollutants was approximately equal to current actual emissions. So PTI net increase is PTI allowable minus Actual in tons per year for each pollutant.

FEES

P929 - 1 Permit to install, process weight rate > 50,000 lb/hr @ \$1000 = \$1000
TOTAL = \$1000

AIR EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for Stoneco Inc. located in

Lucas County. The sources listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

| Ohio EPA Source Number | Source Identification/Description | BAT Determination | Applicable Federal and OAC Rules | Permit Allowable Mass Emissions and/or Control & Usage Requirements |
|-------------------------------|--|---|---|--|
| P929 | 270 TPH portable batch mix asphaltic plant | 0.04 gr/dscf of exhaust gases & 20 percent opacity from the baghouse ≤0.5% S in used oil, ≤0.8% S in fuel #4, ≤1.0% S in fuel #5 ≤1.0% S in fuel #6 and ≤0.5% S in fuel #2 | NSPS (40 CFR Part 60, Subpart I); 3745-31-05 | TSP -0.04 gr/dscf of exhaust gases TSP 12.5 tons/yr SO ₂ - 38.85 lbs/hr, 42 tons/yr NO _x - 45.9 lbs/hr, 49 tons/yr ≤0.8% S in fuel #4, ≤1.0% S in fuel #5, ≤1.0% S in fuel #6 & ≤0.5% S in fuel #2 |
| | | | 3745-21-08(B) | CO - 91.8 lbs/hr, 99 tons/yr |
| | | | 3745-21-07(B) | VOC - 12.4 lbs/hr, 13 tons/yr |
| | | | *3745-18-06 *3745-17-11 | See comment below See comment below |
| | | | 3745-17-07 | less than or equal to 20 percent opacity, as a 6-minute average, from the stack, except as provided by rule |
| | Aggregate handling | no visible emissions except for a period <3 min/hr, sufficient moisture, special handling | 3745-17-08 | no visible emissions of fugitive dust from the enclosures for the hot aggregate elevator, vibrating screens, and weigh hopper |
| | | | 3745-17-07 | The drop height of the front end loader bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust from the elevator loading area. The aggregate loaded into the storage bins shall have a moisture content sufficient to eliminate the visible emissions of fugitive dust from the elevator and the transfer point to the dryer. Less than or equal to 20 percent opacity, as a 3-minute average, for the fugitive dust emissions. |

* This emissions limit is less stringent than the limit established through 3745-31-05

**SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

| <u>Pollutant</u> | <u>Tons/Year</u> | (Net PTI Increase) |
|------------------|------------------|--------------------|
|------------------|------------------|--------------------|

| | | |
|-----------------|------|------|
| TSP | 12.5 | 11.3 |
| VOC | 13 | 11.6 |
| SO ₂ | 42 | 34.8 |
| NO _x | 49 | 43.9 |
| CO | 99 | 88.8 |

SPECIAL TERMS AND CONDITIONS**A. ADDITIONAL TERMS AND CONDITIONS**1. Production Limitation

The maximum annual production rate for this emissions unit shall not exceed 580,000 tons per year, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

| <u>Month</u> | <u>Maximum Allowable Cumulative Production, tons/yr</u> |
|--------------|---|
| 1 | 72,500 |
| 1-2 | 190,000 |
| 1-3 | 285,000 |
| 1-4 | 380,000 |
| 1-5 | 475,000 |
| 1-6 | 570,000 |
| 1-7 | 580,000 |
| 1-8 | 580,000 |
| 1-9 | 580,000 |
| 1-10 | 580,000 |
| 1-11 | 580,000 |
| 1-12 | 580,000 |

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12 month summation of the production rates.

2. Fuel Usage

The source comprising this permit to install shall combust only natural gas, propane, #2 fuel oil of no more than 0.5% sulfur content by weight, #4 fuel oil of no more than 0.8% sulfur content by weight, #5 fuel oil of no more than 1.0% sulfur by weight, #6 fuel oil of no more than 1.0% sulfur content by weight, or used oil of no more than 0.5% sulfur content by weight. Combustion of any other fuel will constitute a violation of this term.

SPECIAL TERMS AND CONDITIONS
3. Specifications for the Used Oil Burned in the Dryer

All recycled, used oil burned in this emissions unit shall meet the following specifications:

| <u>Contaminant/Property</u> | <u>Allowable Specifications</u> |
|-----------------------------|---------------------------------|
| arsenic | 5 ppm, maximum |
| cadmium | 2 ppm, maximum |
| chromium | 10 ppm, maximum |
| lead | 100 ppm, maximum |
| PCB's | 50 ppm, maximum |
| total halogens | 4000 ppm maximum |
| mercury | 1 ppm, maximum |
| flash point | 100°F, minimum |
| heat content | 135,000 Btu/gallon, minimum |

4. Used oil containing more than 1000 ppm total halogens

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under 40 CFR Part 266.40(c) and OAC rule 3745-58-50. Therefore, the permittee may receive and burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm, maximum) only if the supplier [”marketer” in 40 Part CFR 266.43(a)] has demonstrated to the Ohio EPA’s Division of Solid and Hazardous Waste Management that the used oil does not contain any hazardous waste.

5. RAP Limitation

Stoneco may substitute recycled asphalt aggregates in the raw material feed mix in amounts not to exceed 50% of all aggregate materials introduced at any given time.

6. Transfer of Aggregate

- All aggregate transferred to the elevated storage bins shall contain sufficient moisture so as to minimize or eliminate visible emissions of fugitive dust.
- During the loading of the aggregate conveyor or storage bins, the drop height of the front-end loader shall be minimized in order to minimize or eliminate the visible emissions of fugitive dust. The cold aggregate elevator shall be covered at all times.
- Visible particulate emissions from material transfer not exceed 20% opacity as a three-minute average.

SPECIAL TERMS AND CONDITIONS

B. OPERATIONAL RESTRICTIONS

1. Baghouse Operational Restrictions

To ensure the baghouse is operated according to the manufacturer's specifications and to maintain compliance with the allowable particulate emission rate, a pressure drop across the baghouse of 2-6 inches of water column shall be maintained at all times.

C. MONITORING and/or RECORD KEEPING REQUIREMENTS

1. Baghouse Pressure Drop

- a. The permittee shall properly operate and maintain a monitoring device capable of accurately measuring the pressure drop across the fabric filter.
- b. The permittee shall check the pressure drop once a day and maintain daily records of the pressure drop readings.

2. Record keeping requirements for used oil burned in the dryer

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- (a) date of shipment or delivery,
- (b) quantity of used oil received,
- (c) the Btu value of the used oil,
- (d) the flash point of the used oil,
- (e) the arsenic content,
- (f) the cadmium content,
- (g) the chromium content,
- (h) the lead content,
- (I) the PCB content,
- (j) the total halogen content, and
- (k) the mercury content.

Each analysis shall be kept in a readily accessible location for at least 5 years and shall be made available to the Director upon verbal or written request. The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by this facility, of any used oil stored at this facility, or of any used oil sampled at the dryer.

3. Fuel Usage

This facility shall maintain records of the oil supplier's analysis for each shipment of oil which is received for burning in this source. The oil supplier's analyses shall document the sulfur content (percent) of each shipment of oil. These records shall be kept in a central location for a minimum of five (5) years and shall be made available upon request to a representative of the Ohio EPA.

SPECIAL TERMS AND CONDITIONS

4. Record keeping requirements for annual production rate limitations

The permittee shall maintain monthly records of the following information:

- (a) The production rate for each month.
- (b) Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

5. The permittee shall record the percentage of RAP mixed with the raw material feed mix.

D. REPORTING REQUIREMENTS

1. Baghouse

The permittee shall submit deviation (excursion) reports which identify all exceedances of the 2-6" allowable pressure drop range.

2. Used oil burned in the dryer

The permittee shall notify the USEPA and the Ohio EPA if any of the used oil exceeds the used oil specifications. An identification number from USEPA shall be obtained prior to the combustion of any used oil.

Before the permittee accepts the first shipment of any off-specification used oil from a marketer, the permittee must provide the marketer a one-time, written and signed notice certifying that:

- (a) the company has notified USEPA of its used oil management activities and that the notice included the location and description of those activities; and
- (b) the company will burn the used oil only in an industrial furnace or boiler identified in 40 CFR Part 266.41(b) and OAC rule 3745-58-42.

A copy of each certification notice that the marketer sends to a permittee must be kept on file for a minimum of 5 years from the date it last received off-specification used oil from that marketer.

3. Intent to relocate a portable or mobile source

The permittee shall submit a "Notice of Intent to Relocate a Portable or Mobile Source" form 30 days prior to any planned relocation of this emissions unit, in accordance with OAC rule 3745-31-03(A)(6). (A copy of the form is attached to this permit.) Approval of the planned relocation must be obtained from the Toledo Division of Environmental Services prior to the relocation.

4. Annual production rate limitations

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The permittee shall submit semi-annual deviation (excursion) reports which identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels. These reports shall be submitted to the Toledo Division of Environmental Services. Deviation reports for the months of January through June shall be submitted by July 15. Deviation reports for the months of July through December shall be submitted by January 15.

5. Sulfur in oil

The permittee shall report any exceedances of the sulfur limitations for oil combusted in this emissions unit within 30 days to the Toledo Department of Environmental Services.

6. Percentage of RAP mixed with raw material feed

The permittee shall report any exceedances of the percent RAP limitation for RAP mixed with raw material feed in this emissions unit within 30 days to the Toledo Department of Environmental Services.

7. Reporting Deviations

Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (b) the probable cause of such deviations and, (c) any corrective actions or preventative measures that have been or will be taken, shall be submitted to the Toledo Division of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 30, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

E. TESTING REQUIREMENTS

P929

1. Stack testing requirements

Emission testing shall be required consistent with OEPA Engineering Guide #16. Emission tests for particulate shall be conducted in accordance with the tests methods and procedures specified in Method 5 of 40 CFR Part 60, Appendix A. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity compliance. EPA Method 6 CFR Part 60, Appendix A, shall be used for sulfur dioxide emissions testing. The test(s) shall be conducted while the emissions unit is operating at its maximum rated capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

This emissions unit shall combust fuel as clean or cleaner burning than the fuel combusted during the most recent stack test in which compliance was demonstrated. If the permittee wants to combust heavier fuel oils than previously tested, the permittee shall have this emissions unit retested using the heavier fuel oil. For example, if the source was tested for compliance using #4 fuel oil, this source shall combust only #4 or #2 fuel oil or natural gas or propane.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification

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shall describe in detail the proposed test methods and procedures, the source operating parameters, the time(s) and date(s) of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the field office's refusal to accept the results of the emission test.

Personnel from the Ohio EPA or local air agency shall be permitted to witness the test, examine the testing equipment and acquire data and information regarding the emissions unit operating parameters.

A comprehensive written report on the results of the emission test shall be submitted within 30 days following completion of the test.

2. Compliance with the emission limitation(s) in this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation: Less than or equal to 20 percent opacity, as a 6-minute average
Applicable Compliance Method: OAC 3745-17-03(B)(1)
- b. Emission Limitation: 0.04 grains per dry standard cubic foot of exhaust gases.
Applicable Compliance Method: Stack test in accordance with the stack testing requirements above.
- c. Emission Limitation: 12.5 tons per year TSP
Applicable Compliance Method: The permittee shall use the emission factor in pounds of TSP per ton processed obtained from the most recent stack test times the annual tons processed.
- d. Emission Limitation: 38.85 pounds per hour of SO₂.
Applicable Compliance Method: Stack test in accordance with the stack testing requirements above using EPA Test Method 6 .
- e. Emission Limitation: 42 tons per year of SO₂.
Applicable Compliance Method: The permittee shall use the emission factor in pounds of SO₂ per ton processed obtained from the most recent stack test times the annual tons processed.
- f. Emission Limitation: 45.9 pounds per hour of NO_x.
Applicable Compliance Method: Multiply 0.17 pounds of NO_x per ton (AP-42 Table 11.1-7 dated 1/95) processed by the actual operating rate in tons per hour.
- g. Emission Limitation: 49 tons per year of NO_x.
Applicable Compliance Method: Multiply 0.17 pounds of NO_x per ton (AP-42 Table 11.1-7 dated 1/95) processed by the number of tons processed for that calendar year.
- h. Emission Limitation: 12.42 pounds per hour of VOC.
Applicable Compliance Method: Multiply 0.046 pounds of VOC per ton (AP-42 Table 11.1-7 dated 1/95) processed by the actual operating rate in tons per hour.
- i. Emission Limitation: 13 tons per year of VOC.
Applicable Compliance Method: Multiply 0.046 pounds of VOC per ton (AP-42 Table 11.1-7 dated 1/95) processed by the number of tons processed for that calendar year.

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- j. Emission Limitation: 91.8 pounds per hour of CO.
Applicable Compliance Method: Multiply 0.34 pounds of CO per ton (AP-42 Table 11.1-7 dated 1/95) processed by the actual operating rate in tons per hour.
- k. Emission Limitation: 99 tons per year of CO.
Applicable Compliance Method: Multiply 0.34 pounds of CO per ton (AP-42 Table 11.1-7 dated 1/95) processed by the number of tons processed for that calendar year.

F. MISCELLANEOUS REQUIREMENTS

1. Federally Enforceable Requirements

The following Terms and Conditions are Federally Enforceable Requirements: A(1), B(1), C(1&4), D(1&4), and E(1),E(2)

SYNTHETIC MINOR DETERMINATION

A.) DESCRIPTION OF SOURCES

This permit to install encompasses the equipment used for a portable hot mix asphalt batch plant of 270 tons per hour maximum rated capacity. P929 equipment includes the NSPS Subpart I sources (batch mixer & dryer).

B.) FACILITY DETERMINATION/DETERMINATION STATUS

This facility is a synthetic minor because of restrictions that keep emissions less than 100 tons/yr total of CO, NO_x, or SO₂. PSD and NAA consideration is not applicable since this is a minor modification.

C.) SOURCE EMISSIONS

Stoneco has requested a federally enforceable restriction of 72,500 tons per month, and 580,000 ton/yr. This restriction will result in permit allowable emissions of 42 ton/yr SO₂, 49 tons/yr NO_x, 13 tons/yr VOC, 99 tons/yr CO and 12.5 ton/year of TSP.

D.) CONCLUSIONS

This facility has a restricted permit allowable emission limitation of 12.5 tons/yr TSP, 42 tons/yr SO₂, 49 tons/yr NO_x, 13 tons/yr VOC, and 99 tons/yr CO. This permit allowable emission will not trigger Emissions Offset Policy; PSD, or NAA review.

STK EXIT VELOCITY (M/S)= 25.3974
 STK GAS EXIT TEMP (K) = 422.0000
 AMBIENT AIR TEMP (K) = 293.0000
 RECEPTOR HEIGHT (M) = .0000
 URBAN/RURAL OPTION = URBAN
 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.

STACK EXIT VELOCITY WAS CALCULATED FROM
 VOLUME FLOW RATE = 35000.000 (ACFM)

BUOY. FLUX = 15.761 M**4/S**3; MOM. FLUX = 92.716 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) | U10M 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 | 1.1 | 320.0 | 175.12 | 3.48 | 3.48 | NO |
| 100. | 131.3 | 3 | 10.0 | 10.7 | 3200.0 | 29.86 | 21.70 | 20.13 | NO |
| 200. | 118.0 | 4 | 8.0 | 8.7 | 2560.0 | 33.49 | 31.12 | 27.57 | NO |

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
 105. 132.0 3 10.0 10.7 3200.0 29.86 22.97 21.34 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 (UG/M**3) MAX (M) HT (M)

 SIMPLE TERRAIN 132.0 105. 0.

Nox Limits to meet: annual= 12.5 ug/m3
 annual from model: 132.0 ug/m3 (0.08) = 10.56 ug/m3 **passes**

SO2 limits to meet: 3HR= 256 ug/m3, 24 HR= 45.5 ug/m3, annual = 10 ug/m3
 1Hr from modeling = (8.17/5.79) g/s *132.0 ug/m3 = 186.26 ug/m3
 3HR = 186.26 ug/m3 (.9) = 167.63 ug/m3 **passes**
 24 HR = 186.26 ug/m3 (.4) = 74.5 ug/m3 **fail**
 Annual = 186.26 ug/m3 (.08) = 14.9 ug/m3 **fail**

OPT FOR LOWER SO2 ALLOWABLE RATE: 4.90 g/s (38.85 lb/hr)

1Hr from modeling = (4.90/5.79) g/s *132.0 ug/m3 = 111.71 ug/m3
 3HR = 111.71 ug/m3 (.9) = 100.54 ug/m3 **passes**
 24 HR = 111.71 ug/m3 (.4) = 44.68 ug/m3 **passes**
 Annual = 111.71 ug/m3 (.08) = 8.94 ug/m3 **passes**