July 26, 2000

MEMORANDUM

TO: Stephen West, Administrator
Boise Regional Office

FROM: Eric Antrim, Engineer-In-Training
State Technical Services Office EDA

SUBJECT: ***OPERATING PERMIT TECHNICAL ANALYSIS***
T2000081, Capital Paving Company, Boise
(Hot-Mix Asphalt Plant, Operating Permit transfer of ownership)

PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 16.01.01.200 (*Rules for the Control of Air Pollution in Idaho*) for issuing an Operating Permit (OP).

PROJECT DESCRIPTION

Capital Paving Company has purchased a hot-mix asphalt plant previously owned and operated by Rock Contractors Incorporated. Capital Paving Company has requested that we transfer the previously issued permit for this hot-mix asphalt plant into thier name. No change in operations or emissions are associated with this transfer of ownership.

Capital Paving Company also requested that PTC#777-00258 be revoked. This PTC was issued June 2, 2000, to allow them to purchase a hot-mix asphalt plant. The purchase of this hot-mix asphalt plant was terminated on June 15, 2000. This PTC has been revoked.

SUMMARY OF EVENTS

On June 20, 2000, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) received a request to revoke PTC#777-00258 and transfer Operating Permit (OP) #777-00122. On July 7, 2000, DEQ received letters from the two previous owners of the hot-mix asphalt plant establishing a chain-of-custody from Rock Contractors Incorporated to Capital Paving Company. On July 18, 2000, DEQ received a signed statement from you establishing your intent to comply with the terms of the permit as issued to Rock Contractors Incorporated. On July 19, 2000, the application was determined complete.

DISCUSSION

1. Area Classification

   Northern Ada county is designated as non-attainment for CO and PM-10. Ada county is designated as attainment or unclassifiable for all other criteria pollutants.

2. Emission Estimates

   No new emission estimates are required as a result of this permit transfer and revocation.

3. Facility Classification

   This facility is not a major facilities as defined in IDAPA 58.01.01.006.55 (Rules for the Control of Air Pollution in Idaho). This facility is not a designated facility as defined in IDAPA 58.01.01.006.27. This facility is not subject to NSPS. The facility is a hot-mix asphalt plant. The plant has a SIC of 2951.

4. Regulatory Review

   No regulatory review was required or performed for this permit transfer and revocation.

5. Modeling

   No modeling was required or performed for this name change.

6. Fees

This Tier II OP is subject to permit application fees of five hundred dollars ($500.00) in accordance with IDAPA 58.01.01.470.

7. AIRS

Other than a name change of the facility, no other changes are necessary for the AIRs database.

8. Facility Classification

The AIRS facility classification for this facility is "A2" because the uncontrolled potential to emit (PTE) is greater than 100 T/yr.

RECOMMENDATION

Based on review of application materials, and state and federal regulations, staff recommend Capital Paving Company, be issued an amended Tier II OP for their hot-mix asphalt plant.

EA bm TIER2 J:\XFER\AIR_PERM\BRO\T2\CAPITAL\T20000~1.TM

cc: State Technical Services
Boise RO
EPA Region 10

May 19, 2000

MEMORANDUM

TO: Stephen West, Administrator
Boise Regional Office

FROM: Daniel Heiser, P.E.
State Technical Services Office

SUBJECT: *PERMIT TO CONSTRUCT TECHNICAL ANALYSIS*
P-000028, Capital Paving Company, Portable
(Standard Hot-Mix Asphalt Plant Permit to Construct No. 777-00258; Including Aggregate, Asphalt, and Concrete Production when Collocated in Attainment Areas)

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01.200 (*Rules for the Control of Air Pollution in Idaho*) for issuing Permits to Construct (PTC).

PROJECT DESCRIPTION

Capital Paving Company is proposing to commence construction of a portable hot-mix asphalt (HMA) plant to be operated in both attainment and nonattainment areas within the State of Idaho. Note that the Standard PTC for a portable hot-mix asphalt plant also includes provisions for collocated operations in attainment areas with one other portable source (i.e., rock crusher, hot-mix asphalt, or concrete batch plant). The HMA's maximum hourly throughput is eighty tons per hour (80 T/hr). The HMA facility will be initially located near Boise, Idaho.

SUMMARY OF EVENTS

On March 8, 2000, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) received a PTC application. On April 7, 2000, the application was declared complete.

DISCUSSION

1. Process 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 fuel oil.

The Standard PTC requested 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.

2. Equipment Listing

This standard permit analysis includes the following equipment as submitted in the application:

2.1 Portable Hot-Mix Asphalt Plant

Manufacturer/Model:	Cedar Rapids Model 4820
Type:	Drum-Mix
Throughput Capacity (T/hr):	80 T/hr
Burner Fuel Type:	#2 fuel oil
Dryer heat Input (MMBtu/hr):	0.25 MMBtu/hr

2.2 Air Pollution Control Device

Type:	Baghouse
Manufacturer:	Aeropulse
Model:	144 bags 4" x 20' 100 HP fan

2.3 HMA Stack Information

Stack Height (ft):	17 ft
Stack Exhaust Area (sq. in.):	23" x 25"
Exhaust Gas Flowrate (acfm):	16,500 acfm
Stack Exhaust Temp (^{o}F):	435 ^{o}K

When collocated, this hot-mix asphalt plant is then part of a single, larger source that produces either hot-mix asphalt, concrete, and/or aggregate, depending upon which type of portable plant the hot-mix plant is collocated with. The equipment used by this single, larger source would include the hot-mix asphalt plant equipment listed above, plus the equipment of the other portable plant. To see an equipment description for the other portable plant, see the corresponding permitting files for that plant.

3. Area Classification

The HMA facility is a portable source and may operate in both attainment and nonattainment areas throughout the State of Idaho.

4. Emission Estimates

Emission estimates for this HMA facility were calculated using a Lotus spreadsheet and emission factors obtained from AP-42, Section 11.1, 1/95 edition. For purposes of maximum flexibility, the spreadsheet calculates the potential to emit (PTE) based on the worst-case emission factor of all possible fuels to be used at the hot-mix plant (diesel fuel oils, propane, and natural gas). The following air pollutant emissions are calculated by the spreadsheet: PM (particulate matter), PM-10 (particulate matter with an aerodynamic diameter of less than or equal to ten [10] microns), NOx (oxides of nitrogen), SO_2 (sulfur dioxide), and CO (carbon monoxide). In calculating the PTE for each pollutant, the spreadsheet solves for the most limiting pollutant which will give the facility a PTE of less than 100 tons per any consecutive 12-month period (T/yr) (i.e., 99 T/yr). In addition, allowable operational limits for the facility, which corresponds to the PTE <100 T/yr, are given as part of the spreadsheet output. A copy of the spreadsheet showing all calculations and results is presented as Appendix A of this memo.

For collocated operations, a conservative approach is taken by limiting the emissions of each of the collocated units to half of the levels allowed when operating alone. Then the combined emissions of the two collocated sources will be within the allowable levels. See the information below for a more detailed description. This approach is designed to result in acceptable throughput limits for most collocation situations. In cases where the throughput limits are too restrictive, a site-specific analysis and permit amendment may be completed.

In summary, the emission estimates for this facility assume 80 T/hr throughput to a drum-mix HMA plant with one #2 diesel-fired dryer, and fugitive dust emissions from specified sources (see the spreadsheet).

4.1 Collocated Operations in Attainment Areas

Standard PTCs will only allow collocation with one other portable source (i.e., rock crushing plant, hot-mix asphalt plant, or concrete batch plant) which has also received a Standard PTC that specifically allows collocation. When a combination of one portable hot-mix asphalt unit and one other portable unit are operated at a single location, the emissions of both units must be added together when determining PTE. Consistent with the approach taken for attainment area operations, the spreadsheet inherently limits the combined emissions of the two portable units to below certain triggering levels (i.e., PSD and Title V thresholds) by limiting the maximum throughput of each. For collocated operations, half of the attainment area triggering levels are used as limits for calculating throughput for each source. The hot-mix asphalt plant throughput is then established based on the most limiting pollutant or pollutants (i.e., the pollutant whose emission rate is closest to 49.5 T/yr).

5. Modeling

Modeling of the asphalt plant stack emissions was conducted using EPA-approved SCREEN3 computer-run model. The maximum one (1) hour impact from the dryer stack

was calculated to be 9.14 $\mu g/m^3$ using a 1 lb/hr unity emission rate input to the model. The spreadsheet calculates the ambient impact for each air pollutant (PM, PM-10, NOx, SO_2, and CO) based on the calculated lb/hr emission rate, averaging periods and background concentrations. The spreadsheet solves for the most limiting pollutant in attainment areas and gives appropriate operational limits which protects the applicable National Ambient Air Quality Standard (NAAQS) as defined in IDAPA 16.01.01.577. In addition, the spreadsheet also calculates the most limiting pollutant in nonattainment areas and gives operational limits to protect applicable significant contribution requirements as defined in IDAPA 16.01.01.006.89. All SCREEN modeling output files are presented as Appendix B of this memo. Spreadsheet impact calculations and results are presented as Appendix A.

For collocated operations in attainment areas, operation of the hot-mix asphalt plant and its generator (if used) are limited as needed so that the modeled impacts will be half of the available allowable ambient impact. Likewise for collocated operations, the modeled impacts of the other portable facility will also be limited to half of the available allowable ambient impact so that the combined emissions of the two collocated sources will remain within the NAAQS. Using the 24-hour NAAQS standard for PM-10 (attainment area) as an example, one half of the allowable available impact would be equal to 32 $\mu g/m^3$, as follows:

$$32\ \mu g/m^3 = 0.5 \times [150\ \mu g/m^3 - 86\ \mu g/m^3],$$

where 150 $\mu g/m^3$ is the 24-hour average standard and 86 $\mu g/m^3$ is the conservative statewide 24-hour average background value. Then operation of the HMA plant and its generator (if used) would be limited as needed, based on the specific ambient impact modeling, so that the modeled 24-hour concentration does not exceed 32 $\mu g/m^3$ at or beyond the facility's property boundary. This approach is designed to result in acceptable operational limits for most collocation situations. In cases where these limits are too restrictive, a site-specific analysis and permit amendment may be completed. If a generator is used, the modeling estimates are included as Appendix B.

6. Facility Classification

Hot-mix asphalt plants (including collocated operations producing asphalt, concrete, and aggregate) are not designated facilities, as defined in IDAPA 16.01.01.006.27. This facility is not a major facility as defined in IDAPA 16.01.01.006.55 and IDAPA 16.01.01.008.10. The SIC code for this hot-mix asphalt facility is 2951. The AIRS facility classification for this facility is "A2" because the uncontrolled potential to emit is greater than 100 T/yr.

7. Regulatory Review

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

IDAPA 16.01.01.201	Permit to Construct
IDAPA 16.01.01.202	Application Procedures
IDAPA 16.01.01.203	Permit Requirements for New and Modified Stationary Sources

IDAPA 16.01.01.209	Procedures for Issuing Permits
IDAPA 16.01.01.211	Conditions for Permits to Construct
IDAPA 16.01.01.212	Obligation to Comply
IDAPA 16.01.01.577	Ambient Air Quality Standards
IDAPA 16.01.01.625	Visible Emissions
IDAPA 16.01.01.650	Rules for Control of Fugitive Dust
IDAPA 16.01.01.725	Rules for Sulfur Content of Fuels
IDAPA 16.01.01.805	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."

8. Permit Coordination

This hot-mix asphalt facility is not a major facility as defined by IDAPA 16.01.01.006.55 and IDAPA 16.01.01.008.10. However, the applicant has indicated that it is an NSPS-affected facility (40 CFR Part 60, Subpart OOO), and as such, it is a Tier I source as defined by IDAPA 16.01.01.006.104(b). In accordance with IDAPA 16.01.01.301.02(b), Tier I sources not located at major facilities do not require a Tier I operating permit until June 1, 2001, unless an earlier date is required by an applicable standard or EPA determines that no Tier I operating permit is required.

9. AIRS Information

The AIRS data base will be updated to include this new permit. AIRS forms are included as Appendix C of this technical analysis.

FEES

This facility is not a major facility as defined in IDAPA 16.01.01.008.10. Therefore, registration and registration fees in accordance with IDAPA 16.01.01.526 are not applicable.

RECOMMENDATION

Based on review of application materials and state and federal rules and regulations, staff recommend that Capital Paving Company be issued a PTC for a portable HMA facility. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD PTC requirements.

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cc: State Technical Services
EPA Region 10
Boise RO

Appendix A

Emission Estimate Calculations

P-000028
Capital Paving Company, Portable

INPUT SECTION - enter info in highlighted areas only

Company:	Capital Paving	
Permit Engineer:	DH	
Date:	05/08/00	
Filename:	E:Capital Paving	
Enter the HMA Plant Type:	B	(A = Batch Mix Hot Mix Asphalt Plant) (B = Drum Mix Hot Mix Asphalt Plant)
Dryer Fuel Type:	b	(A = Natural Gas-Fired Dryer) (B = Oil-Fired Dryer)
Enter Dryer Stack Flow Rate:	16,500	[=] actual cubic feet per minute (acfm)
Enter Dryer Stack Temperature:	435	[=] temperature (oF)
Enter Dryer Stack Moisture:	18.00	[=] moisture wt % (Default 18 wt%)
Enter Dryer Stack Pressure:	29.92	[=] stack pressure (Default 29.92 "Hg)
Calculated Corrected Flow Rate:	7,900	[=] dry standard cubic feet per minute (dscfm)
Enter HMA Maximum Capacity:	80	[=] Ton/hr (Asphalt Throughput)
Enter HMA Modeled Concentration:	9.14	[=] µg/m3, (1-hr concentration @ 1 lb/hr)
Is a PM performance test required for this HMA plant?	N	Y or N (based on 40 CFR 60.90 Requirements)
Does Plant Require a Generator?	n	Y or N
	1500	
	B	
	A	
	184	
	0.25	
	9.14	

SPREADSHEET DATA - information used by spreadsheet

State Wide Background Concentrations for Criteria Air Pollutants

	1-hr	3-hr	8-hr	24-hr	Annual
PM-10				86	32.7
CO	11400		5130		
NOx					40
SOx		543		144	23.5

Parameters used in the Fugitive Emission Calculations

Mean Wind Speed (U)	10	[=] mph
Material Moisture Content (M)	2.5	[=] %
Particle Size Multiplier (k)		
PM-10 (<10 µm)	0.35	[=] dimensionless
Emission Factor:		
PM-10 (<10 µm)	0.0020	[=] lb/T
PM2	0.0053	[=] lb/T

Notes: 1 EF = k*0.0032*(U/5)^1.3/(M/2)^1.4
Drop-Point Equation, Rating "A." AP-42, 5th Ed. p.13.2.4-3.
Assumptions: Wind Speed = 10 mph; Moisture = 2.5%; and Aggregate = 94% of product.

FACILITY CLASSIFICATION INPUT

Enter Annual Emission Limit:	100	[=]T/yr

Note: Use 100 T/yr for Title V Limitation
Use 250 T/yr for PSD Limitation
For the standard HMA permit, use 100 T/yr.

PERMIT REQUIREMENTS SECTION - enforceable permit limits
AIRS Facility Classification: A2

Non-attainment Area	Allowable Emission Limits	
HMA Dryer Stack:	NA lb/hr	NA T/yr
Generator:	NA hr/day NA hr/year	NA T/yr
HMA Plant Throughput Limits:	960 T/day	350,306 T/yr

Attainment Area	Allowable Emission Limits	
HMA Dryer Stack:	NA lb/hr	NA T/yr
Generator:	NA hr/day NA hr/year	NA T/yr
HMA Plant Throughput Limits:	NA T/day	700,800 T/yr

Collocated Attainment Areas	Allowable Emission Limits	
A Dryer Stack:	NA lb/hr	NA T/yr
Generator:	NA hr/day NA hr/year	NA T/yr
HMA Plant Throughput Limits:	NA T/day	350,400 T/yr

	CO 1-hr Standard	SO2 3-hr standard	CO 8-hr Standard
	minutes/1-hr	hr/3-hr	hr/8-hr
	60.0	3.0	8.0

INPUTS TO PERMIT TO CONSTRUCT (PTC)		Value	Units
Section B "Attainment Area When Not Collocated"			
Section B.1.1 Facility Throughput Limits:	Annual Throughput Limit	700,800	T/yr
	<<OR>>		
	Daily Throughput Limit	NA	T/day
	Annual Throughput Limit	700,800	T/yr
Section B.1.3 Generator Hours of Operation:	Annual Hours of Operation	NA	hr/year
	<<AND/OR>>		
	Daily Hours of Operation	NA	hr/day
Section C "Attainment Area When Collocated"			
Section C.1.3 Facility Throughput Limits:	Annual Throughput Limit	350,400	T/yr
	<<OR>>		
	Daily Throughput Limit	NA	T/day
	Annual Throughput Limit	350,400	T/yr
Section C.1.4 Generator Hours of Operation:	Annual Hours of Operation	NA	hr/year
	<<AND/OR>>		
	Daily Hours of Operation	NA	hr/day
Section D "Nonattainment Area"			
Section D.1.1 Facility Throughput Limits:	Annual Throughput Limit	350,306	T/yr
	<<OR>>		
	Daily Throughput Limit	960	T/day
	Annual Throughput Limit	350,306	T/yr
Section D.1.3 Generator Hours of Operation:	Annual Hours of Operation	NA	hr/year
	<<AND/OR>>		
	Daily Hours of Operation	NA	hr/day

DRYER EMISSION RATE CALCULATIONS

	DRYER STACK		
Pollutant	Emission Factor [=] lb/ton	Emission Rate (Uncontrolled) [=] lb/hr	Emission Rate (Controlled) [=] lb/hr
Total PM	19.00	1,520.00	2.74
Total PM-10	[=] gr/dscf 0.04	344.00	2.74
CO	[=] lb/ton 0.036	2.88	2.88
NO_x	0.075	6.00	6.00
SO_2	0.056	4.48	4.48

HMA emission factors for CO, NO_x, SO_2 and uncontrolled PM & PM-10 are from AP-42 Section 11.1. Controlled PM & PM-10 is from the NSPS 0.04 gr/dscf.

GENERATOR EMISSION RATE CALCULATIONS

	GENERATOR STACK		
Pollutant	Emission Factor [=] lb/hp-hr	Emission Rate (Uncontrolled) [=] lb/hr	Emission Rate (Controlled) [=] lb/hr
Total PM	N/A	0.00	0.00
Total PM-10	N/A	0.00	0.00
CO	N/A	0.00	0.00
NO_x	N/A	0.00	0.00
SO_2	N/A	0.00	0.00

Generator emission factors are from AP-42 Section 3.3 and 3.4.

MODELING ANALYSIS CALCULATIONS FOR ATTAINMENT AREAS

	Allowable Impacts						Permitted Impacts			
	NAAQS			< 100 TPY			NAAQS			< 100 TPY
Pollutant	Hours of Operation [=] hr/day	Hours of Operation [=] hr/year	Other a,b,c	Hours of Operation [=] hr/year	Hours of Operation [=] hr/day	Hours of Operation [=] hr/year	Calculated 24-hr Impact [=] µg/m³	Calculated Annual Impact [=] µg/m³	Other a,b,c	Calculated Emissions [=] ton/year
PM	N/S	N/S			24.0	8,760				
PM-10	24.0	8,760		8,760	Based on:	Based on:	10.00	2.00		13.98
CO	N/S	N/S		8,760	None	None	10.53	2.11		12.61
CO a			1.0				—	—	26.32	
CO b			8.0		No emission limitations.		—	—	18.43	
NO_x	N/S	8,760		8,760			—	4.39		26.28
SO_2	24.0	8,760		8,760			16.38	3.28		19.62
SO_2 c			3.0				—	—	36.85	

MODELING ANALYSIS CALCULATIONS FOR NONATTAINMENT AREAS

	Allowable Impacts						Permitted Impacts			
	NAAQS			< 100 TPY			NAAQS			< 100 TPY
Pollutant	Hours of Operation [=] hr/day	Hours of Operation [=] hr/year	Other a,b,c	Hours of Operation [=] hr/year	Hours of Operation [=] hr/day	Hours of Operation [=] hr/year	Calculated 24-hr Impact [=] µg/m³	Calculated Annual Impact [=] µg/m³	Other a,b,c	Calculated Emissions [=] ton/year
PM	N/S	N/S			12.0	4,379				
PM-10	12.0	4,379		8,760	Based on:	Based on:	5.00	1.00		6.99
CO	N/S	N/S		8,760	PM-10	PM-10	5.26	1.05		6.31
CO a			1.0				—	—	26.32	
CO b			8.0		Limited by Significant Cont..		—	—	18.43	
NO_x	N/S	8,760		8,760			—	2.19		13.14
SO_2	24.0	8,760		8,760			10.01	1.64		9.81
SO_2 c			3.0				—	—	36.85	

FUGITIVE EMISSION CALCULATIONS FOR ATTAINMENT AREAS

	PM	PM-10
Pre-Dryer Source Emissions ([=] lb/hr)		
Loader -> Cold Aggregate Bin	0.40	0.15
Cold Aggregate Bin -> Conveyor	0.40	0.15
Conveyor -> Drum Dryer	0.40	0.15
Total Pre-Dryer Source Emissions	1.20	0.46
Post-Dryer Source Emissions		
Screening Process	NA	NA
Screen -> Hot Bins	NA	NA
Hot Bins -> Weigh Hopper	NA	NA
Weigh Hopper -> Pug Mill	NA	NA
Total Post-Dryer Source Emissions	NA	NA
Scavenger Control Efficiency	NA	NA
Total Uncontrolled Emissions ([=] lb/hr)	1.20	0.46
Total Uncontrolled Emissions ([=] T/yr)	5.27	1.99
Total Controlled Emissions ([=] lb/hr)	1.20	0.46
Total Controlled Emissions ([=] T/yr)	5.27	1.99

a: National Asphalt Pavement Association
-hr Averaging Period
b [illegible] 8-hr Averaging Period
c SO2 3-hr Averaging Period

FUGITIVE EMISSION CALCULATIONS FOR NONATTAINMENT AREAS

	PM	PM-10
Pre-Dryer Source Emissions ([=] lb/hr)		
Loader -> Cold Aggregate Bin	0.40	0.15
Cold Aggregate Bin -> Conveyor	0.40	0.15
Conveyor -> Drum Dryer	0.40	0.15
Total Pre-Dryer Source Emissions	1.20	0.46
Post-Dryer Source Emissions2		
Screening Process	NA	NA
Screen -> Hot Bins	NA	NA
Hot Bins -> Weigh Hopper	NA	NA
Weigh Hopper -> Pug Mill	NA	NA
Total Post-Dryer Source Emissions	NA	NA
Scavenger Control Efficiency	NA	NA
Total Uncontrolled Emissions ([=] lb/hr)	1.20	0.46
Total Uncontrolled Emissions ([=] T/yr)	2.63	1.00
Total Controlled Emissions ([=] lb/hr)	1.20	0.46
Total Controlled Emissions ([=] T/yr)	2.63	1.00

SPREADSHEET SUMMARY - results of emission and modeling calcs for all pollutants

ATTAINMENT & UNCLASSIFIABLE AREAS			NONATTAINMENT AREAS	
Uncontrolled	Controlled	Dryer	Uncontrolled	Controlled
6657.6 T/yr	12.0 T/yr	PM	3327.9 T/yr	6.0 T/yr
1506.7 T/yr	12.0 T/yr	PM-10	753.2 T/yr	6.0 T/yr
12.6 T/yr	12.6 T/yr	CO	6.3 T/yr	6.3 T/yr
26.3 T/yr	26.3 T/yr	NO_x	13.1 T/yr	13.1 T/yr
19.6 T/yr	19.6 T/yr	SO_2	9.8 T/yr	9.8 T/yr
		Generator		
0.0 T/yr	0.0 T/yr	PM	0.0 T/yr	0.0 T/yr
0.0 T/yr	0.0 T/yr	PM-10	0.0 T/yr	0.0 T/yr
0.0 T/yr	0.0 T/yr	CO	0.0 T/yr	0.0 T/yr
0.0 T/yr	0.0 T/yr	NO_x	0.0 T/yr	0.0 T/yr
0.0 T/yr	0.0 T/yr	SO_2	0.0 T/yr	0.0 T/yr
		Fugitives		
5.3 T/yr	5.3 T/yr	PM	2.6 T/yr	2.6 T/yr
2.0 T/yr	2.0 T/yr	PM-10	1.0 T/yr	1.0 T/yr
		Total [1]		
6662.9 T/yr	17.3 T/yr	PM	3330.5 T/yr	8.6 T/yr
1508.7 T/yr	14.0 T/yr	PM-10	754.2 T/yr	7.0 T/yr
12.6 T/yr	12.6 T/yr	CO	6.3 T/yr	6.3 T/yr
26.3 T/yr	26.3 T/yr	NO_x	13.1 T/yr	13.1 T/yr
19.6 T/yr	19.6 T/yr	SO_2	9.8 T/yr	9.8 T/yr
1508.7 [=] T/yr of PM-10	26.3 [=] T/yr of NO_x	Title V PTE Summary [2]	754.2 [=] T/yr of PM-10	13.1 [=] T/yr of NO_x
6662.9 [=] T/yr of PM	26.3 [=] T/yr of NO_x	Facility PTE Summary	3330.5 [=] T/yr of PM	13.1 [=] T/yr of NO_x
Enforceable Limits -- Attainment Areas			Enforceable Limits -- Non-Attainment Areas	
24.0 hr/day	8,760 hr/yr		12.0 hr/day	4,379 hr/yr
Dryer Controlled Emission Rates		Emission Limits	Dryer Controlled Emission Rates	
2.7 lb/hr	12.0 T/yr	PM/PM-10	2.7 lb/hr	6.0 T/yr
2.9 lb/hr	12.6 T/yr	CO	2.9 lb/hr	6.3 T/yr
6.0 lb/hr	26.3 T/yr	NO_x	6.0 lb/hr	13.1 T/yr
4.5 lb/hr	19.6 T/yr	SO_2	4.5 lb/hr	9.8 T/yr
Generator Controlled Emission Rates		Emission Limits	Generator Controlled Emission Rates	
0.0 lb/hr	0.0 T/yr	PM-10	0.0 lb/hr	0.0 T/yr
0.0 lb/hr	0.0 T/yr	CO	0.0 lb/hr	0.0 T/yr
0.0 lb/hr	0.0 T/yr	NO_x	0.0 lb/hr	0.0 T/yr
0.0 lb/hr	0.0 T/yr	SO_2	0.0 lb/hr	0.0 T/yr

1 Total is the dryer, generator and fugitives added together for total PTE.
2 Title V PTE summary does not account for PM, only PM-10.

Attainment Area - Collocated Units - Calculations

Collocation Ambient Air Quality Standards - Calculations

Pollutant	(1-hr,3-hr,8-hr,& 24-hr standards are cut in half for collocation) 1-hr	3-hr	8-hr	24-hr	Annual (50% Attainment Hours)
PM					
PM-10				21.997312197	7.64973121 97
CO	14273.6768		2416.57376		
NOx					27.8064
SO2		341.64752		94.12112	26.612112
TOC					

Background Concentrations -- Attainment/Non-Classifiable Areas (ug/m3)

P ~ ~nt	1-hr	3-hr	8-hr	24-hr	Annual
				86	32.7
CO	11400		5130		
NOx					40
SO2		543		144	23.5
TOC					

Appendix B

Modeling Results

P-000028
Capital Paving Company, Portable

05/08/00
10:15:56

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

Capital Paving

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.126000
STACK HEIGHT (M)	=	5.2000
STK INSIDE DIAM (M)	=	.7000
STK EXIT VELOCITY (M/S)	=	20.2345
STK GAS EXIT TEMP (K)	=	435.0000
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	1.0000
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.

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 16500.000 (ACFM)

BUOY. FLUX = 7.935 M**4/S**3; MOM. FLUX = 33.783 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	106.49	2.56	2.53	NO
100.	7.152	4	20.0	20.0	6400.0	9.58	8.26	4.75	NO
200.	8.038	4	20.0	20.0	6400.0	9.58	15.63	8.62	NO
300.	6.629	4	10.0	10.0	3200.0	15.33	22.80	12.43	NO
400.	5.636	4	8.0	8.0	2560.0	17.86	29.68	15.69	NO
500.	4.741	4	5.0	5.0	1600.0	25.46	36.61	19.19	NO
600.	4.331	4	5.0	5.0	1600.0	25.46	43.11	21.99	NO
700.	3.885	4	4.5	4.5	1440.0	27.71	49.61	24.88	NO
800.	3.521	4	4.0	4.0	1280.0	30.52	56.04	27.74	NO
900.	3.220	4	3.5	3.5	1120.0	34.14	62.43	30.60	NO
1000.	2.964	4	3.5	3.5	1120.0	34.14	68.63	33.14	NO

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

145.	9.144	4	20.0	20.0	6400.0	9.58	11.71	6.59	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	9.144	145.	0.

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

Appendix C

AIRS Information

P-000028
Capital Paving Company, Portable

ABBREVIATED AIRS DATA ENTRY SHEET - HOT MIX ASPHALT PLANTS

Name of Facility: Capital Paving Company

AIRS/Permit #: 777-00258

Permit Issue Date: May 15, 2000

*Source/Emissions Unit Name (25 spcs) (Please use name as indicated in permit)	SCC # (8 digit #)	Air Program (SIP/NESHAP/ NSPS/PSD)
* HMA Drum Dryer	30500201	NSPS
Agg Handling/Piles	30500204	SIP
Haul Roads	30500290	SIP
Property Boundary	30588801	SIP

RETURN TO PAT RAYNE
AIRS-PT.LST (9/95)