Triangle Construction Road Building
5437 Star Avenue
Panama City, Florida 32404

Facility Address:

Bay County

AIRS No.: 0050038-003-AO
Dated
Received November 1, 2005
Contact James Rowe
Phone No.: 850 784-0291

Asphalt Process: Batch Mix

Process Factors (From Facility Permit Application)

Burning Fuel Oil

Max Production Rate		120	Tons/Hour
Max Fuel Usage		360	Gallons/Hour
Type Fuel	Distillate oil	7.206	lb/Gallon
Max. Sulfur		0.005	S (0.50%)
Avg. Heat Content		141,000	BTU/Gallon
Max Hours of Operation		1,000	Hours/Year

AP-42 Emission Factors (Fuel Oil)

NO_x	0.12	lb/Ton
CO	0.40	lb/Ton
SO_2	0.088	lb/Ton
VOC	0.032	lb/Ton
HAPs	0.0076	lb/Ton
Formaldehyde	0.00074	lb/Ton

Baghouse Factors

Inlet Gas Flow Rate	24,000	acfm
Inlet Gas Temperature	300	F
Exit Gas Temperature	170	F
stack moisture	6	%

Synthetic Minor (SM) Limits

Maximum Annual Asphalt Production Limit = 120,000 Tons/Year *(limited to assure minor status for NO_x emissions)*

CALCULATED RESULTS

Pollutant	Potential to Emit (PTE)	Synthetic Minor Limited (SM)
PART.	3.25	3.25
NO_x	7.20	7.20
CO	24.00	24.00
SO_2	12.97	12.97
VOC	1.92	1.92
HAPs	0.46	0.46
Forma.	0.04	0.04

NOTE: THE PM IS CALCULATED BASED ON THE NSPS ALLOWABLE LIMIT (0.04 GR/DSCF) AND THE SO_2 IS BASED UPON THE MAXIMUM SULFUR CONTENT OF THE FUEL (0.50%), WHILE THE REMAINDER OF THE POLLUTANTS ARE CALCULATED USING AP-42 VALUES.

Particulate Matter (PM) Emissions

Assume Moisture Content 6% **NSPS Limit for Hot Mix Asphalt Facilities = 90 mg/dscm or 0.04 gr/dscf**

(0.04 gr/dscf)(24,000 acfm)(1-6/100)(68 F+460)/(250 F+460)(60 min/hr)(1lb/7,000 gr) = **6.51 lb/Hour**

(6.51 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **3.25 Tons/Year (PTE)**

The asphalt production maximum has been limited to 120,000 ton/year.

(6.92 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **3.25 Tons/Year (SM)**

Nitrogen Oxides (NOx) Emissions

(0.12 lb/ton)(120 tons/hr)= **14.40 lb/Hour**

(14.40 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **7.20 Tons/Year (PTE)**

The asphalt production maximum has been limited to 120,000 ton/year.

(120,000 tons/yr)(0.12 lb/ton)(1 ton/2,000lb)= **7.20 Ton/Year (SM)**

Carbon Monoxide (CO) Emissions

(0.40 lb/ton)(120 ton/hr) = **48.00 lb/Hour**

(48.00 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **24.00 Ton/Year (PTE)**

The asphalt production maximum has been limited to 120,000 ton/year.

(120,000 ton/yr)(0.40 lb/ton)(1 ton/2,000 lb) = **24.00 Ton/Year (SM)**

Sulfur Dioxide (SO_2) Emissions

(360 gal/hr)(7.206 lb/gal)(0.0050 S)(2 lb SO_2/S) = **25.94 lb/Hour**

(25.94 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **12.97 Ton/Year (SM)**

Volatile Organic Compounds (VOC) Emissions

(0.032 lb/ton)(120 ton/hr) = **3.84 lb/Hour**

(0.09 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **1.92 Ton/Year (PTE)**

The asphalt production maximum has been limited to 120,000 ton/year.

(120,000 ton/yr)(0.032 lb/ton)(1 ton/2,000 lb) = **1.92 Ton/Year (SM)**

Hazardous Air Pollutants (HAPs) Emissions

(0.0076 lb/ton)(120 ton/hr) = **0.91 lb/Hour**

(0.91 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **0.46 Ton/Year (PTE)**

The asphalt production maximum has been limited to 120,000 ton/year.

(120,000 ton/yr)(0.0076 lb/ton)(1 ton/2,000 lb) = **0.46 Ton/Year (SM)**

Formaldehyde Emissions (Maximum Individual HAP)

(0.00074 lb/ton)(120 ton/hr) = **0.09 lb/Hour**

(0.09 lb/hr)(1,000 hr/yr)(1 ton/2,000 lb) = **0.04 Ton/Year (PTE)**

The asphalt production maximum has been limited to 120,000 ton/year.

(120,000 ton/yr)(0.00074 lb/ton)(1 ton/2,000 lb) = **0.04 Ton/Year (SM)**