

**New York State Department of Environmental Conservation  
Air Facility Registration Application**



**Department of  
Environmental  
Conservation**

DEC ID										
8	-	3	4	2	2	-	0	0	0	3

Application Type	
<input type="checkbox"/> New Facility	<input checked="" type="checkbox"/> Notification of Changes <input type="checkbox"/> Renewal

Sheet 1 of 2

**Facility Information**

Name Eagle Harbor Sand & Gravel, Inc.			
Location Address 10830 Blair Road			
City Medina	County Orleans	Township Barre	Zip 14103

Facility Owner (Individual/Firm)			Taxpayer ID								
			1	6	1	4	7	2	8	8	5

Name Eagle Harbor Sand & Gravel, Inc.			
Street Address 10830 Blair Road			
City Medina	State/Province NY	Country USA	Zip 14103

**Facility Contact**

Name Thomas Biamonte			
Street Address 10830 Blair Road			
City Medina	State/Province NY	Country USA	Zip 14103
E-mail shelbystone585@gmail.com		Phone 585-798-4501	Fax

Facility Description		Number of Emission Points: <u>1</u>		<input type="checkbox"/> Continuation Sheet(s)	
SIC Code(s)	1442	NAICS Code(s)	212321		

The Eagle Harbor facility is a sand and gravel pit as well as a future bedrock quarry. The sand and gravel is being excavated from above the bedrock. It is sent through a series of crushers, screens and conveyors. The finished aggregates are sent to stockpiles where they are loaded onto haul trucks and taken to construction projects. Power is supplied to the existing sand and gravel processing plant with line power. Most of the plant is wet process. The remaining portions of the plant controls dust with water spray.

When the future bedrock is exposed, the bedrock will be drilled and blasted to break the rock up. The shot rock will be hauled to a portable crusher, screen and associated conveyors. Power to the portable plants will be supplied by two self contained generators (one over 400 horsepower and one under 400 horsepower) located on the plants. Dust will be controlled by water spray.

**Source Classification Codes**  Continuation Sheet(s)

20200102	30502502			

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Sheet \_\_\_\_ of 2

Applicable Federal and New York State Regulations at the Subpart Level					<input type="checkbox"/> Continuation Sheet(s)
200	201-4	6NYCRR211	6NYCRR212	6NYCRR215	
6NYCRR217	6NYCRR225	CNYCRR227			

Auto Body Shops	
gallons of coatings/month:	gallons of solvents/month:

Facility Emissions Summary				
Criteria Pollutants				
CAS Number	Contaminant Name	Cap by Rule	Actual (lbs/yr)	PTE (lbs/yr)
000630-08-0	Carbon Monoxide	<input checked="" type="checkbox"/>		
0NY998-00-0	Total Volatile Organic Compounds (VOC)	<input checked="" type="checkbox"/>		
0NY210-00-0	Oxides of Nitrogen	<input checked="" type="checkbox"/>		
0NY075-00-0	Total Particulate Matter (PM-10 and PM-2.5)	<input checked="" type="checkbox"/>		
007446-09-5	Sulfur Dioxide	<input checked="" type="checkbox"/>		
0NY100-00-0	Total Hazardous Air Pollutants (HAP)	<input checked="" type="checkbox"/>		
007439-92-1	Lead	<input checked="" type="checkbox"/>		
0NY750-00-0	Carbon Dioxide Equivalents	<input checked="" type="checkbox"/>		

Individual Hazardous Air Pollutants					<input type="checkbox"/> Continuation Sheet(s)
CAS Number	Contaminant Name	Cap by Rule	Actual (lbs/yr)	PTE (lbs/yr)	
71-43-2	Benzene	<input checked="" type="checkbox"/>			
50-00-0	Formaldehyde	<input checked="" type="checkbox"/>			
91-20-3	Naphthalene	<input checked="" type="checkbox"/>			
108-88-3	Toluene	<input checked="" type="checkbox"/>			
1330-20-7	Xylene	<input checked="" type="checkbox"/>			

High Toxicity Air Contaminants					<input type="checkbox"/> Continuation Sheet(s)
CAS Number	Contaminant Name		Actual (lbs/yr)		

Certification	
I certify the truth, accuracy, and completeness of the information contained in this application.	
Responsible Official	Title
Signature	Date

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operation**  
**Air Emission Summary**

<b>Annual Proposed Capping Limits</b>										
<b>Emission Unit 1-Eagle</b>										
<b>Emission Source</b>	<b>Fuel Use</b>	<b>Annual Prod.</b>	<b>Hours of Op.</b>	<b>PM2.5</b>	<b>PM10</b>	<b>NOx</b>	<b>VOC's</b>	<b>SO2</b>	<b>CO</b>	<b>HAPs</b>
Quarry - Wash Plant	NA	462,000	2,800	81	756	NA	NA	NA	NA	NA
Quarry - Portable Plant	NA	840,000	2,800	160	12,188	NA	NA	NA	NA	NA
Lokotrack ST2.8 Plant Genset	11,200	NA	2,800	83	825	11,631	927	385	2,506	2
Lokotrack 1213 Plant Genset	56,000	NA	2,800	256	2,556	36,022	2,870	1,191	7,762	11
<b>TOTALS (in pounds)</b>				<b>579</b>	<b>16,326</b>	<b>47,653</b>	<b>3,797</b>	<b>1,576</b>	<b>10,268</b>	<b>14</b>
<b>TOTALS (in tons)</b>				<b>0.29</b>	<b>8.16</b>	<b>23.83</b>	<b>1.90</b>	<b>0.79</b>	<b>5.13</b>	<b>0.01</b>

<b>Annual Potential to Emit Emissions</b>										
<b>Emission Unit 1-Eagle</b>										
<b>Emission Source</b>	<b>Fuel Use</b>	<b>Annual Prod.</b>	<b>Hours of Op.</b>	<b>PM2.5</b>	<b>PM10</b>	<b>NOx</b>	<b>VOC's</b>	<b>SO2</b>	<b>CO</b>	<b>HAPs</b>
Quarry - Wash Plant	NA	1,445,400	8,760	254	18,935	NA	NA	NA	NA	NA
Quarry - Portable Plant	NA	2,628,000	8,760	500	38,132	NA	NA	NA	NA	NA
Lokotrack ST2.8 Plant Genset	35,040	NA	8,760	258	2,582	36,389	2,899	1,203	7,841	7
Lokotrack 1213 Plant Genset	175,200	NA	8,760	800	7,998	112,697	8,979	3,726	24,284	36
<b>TOTALS (in pounds)</b>				<b>1,813</b>	<b>67,647</b>	<b>149,086</b>	<b>11,879</b>	<b>4,929</b>	<b>32,126</b>	<b>43</b>
<b>TOTALS (in tons)</b>				<b>0.91</b>	<b>33.82</b>	<b>74.54</b>	<b>5.94</b>	<b>2.46</b>	<b>16.06</b>	<b>0.02</b>

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operation**  
**Air Emission Summary**

<u>CO<sub>2</sub> equivalents (PTE)</u>										
Plant	Rated Capacity	units	Potential Hours	Emission Factor lbs/ton CO <sub>2</sub>	Emission Factor lbs/ton CH <sub>4</sub>	Emission Factor lbs/hp-hr CO <sub>2</sub>	Emission Factor lbs/hp-hr CH <sub>4</sub>	PTE (tons) CO <sub>2</sub>	PTE (tons) CH <sub>4</sub>	PTE (tons) CO <sub>2</sub> e
Lokotrack ST2.8 Plant Genset	134	hp	8,760			1.150	0.00247	675	1.4	705
Lokotrack ST2.8 Plant Genset	415	hp	8,760			1.150	0.00247	2,090	4.5	2,185
<b>TOTALS (in pounds)</b>				-	-	2	0	2,765	5.9	2,890

<sup>1</sup>Emission factors taken from AP-42 3.3 Gasoline and Diesel Engines (Small Diesel Engines) using TOC as equivalent to CH<sub>4</sub>

**Eagle Harbor Sand & Gravel, Inc.**  
**Wash Plant - Fixed Plant**  
**Eagle Harbor Operation -Proposed Capped Emissions**

Equipment Type	Rated TPH	Hours Per Day	Days Per Year	TPA	Em Factor		Em Factor	
					PM2.5a (lb/ton)	PM2.5 (pounds)	PM10 <sup>a</sup> (lb/ton)	PM10 (pounds)
Conveyor	165	10	280	462,000	0.000013	6	0.000048	22
Scalp Screen	165	10	280	462,000	0.00005	23	0.00084	388
Primary Crusher	165	10	280	462,000	0.0001	46	0.0007	323
Conveyor	165	10	280	462,000	0.000013	6	0.000048	22
Conveyor to Dry Tower	165	10	280	462,000	0.000013	6	0.000048	22
6 x 16 Screen	165	10	280	462,000	0.00005	23	0.00084	388
Single sand screw	350	10	280	980,000	0	0	0	-
Mason Sand Conveyor	350	10	280	980,000	0	0	0	-
Double sand screw	350	10	280	980,000	0	0	0	-
Concrete Sand Screw	350	10	280	980,000	0	0	0	-
<b>TOTAL EMISSIONS</b>							81	756

<sup>a</sup>AP-42 emissions factors from Table 11.19.2.2-1 in AP-42 11.19.2 Crushed Stone Processing

**Eagle Harbor Sand & Gravel, Inc.**  
**Wash Plant - Fixed Plant**  
**Eagle Harbor Operation -Potential to Emit Emissions**

Equipment Type	Rated TPH	Hours Per Day	Days Per Year	TPA	Em Factor		Em Factor	
					PM2.5a (lb/ton)	PM2.5 (pounds)	PM10 <sup>a</sup> (lb/ton)	PM10 (pounds)
Conveyor	165	24	365	1,445,400	0.000013	19	0.001	1,445
Scalp Screen	165	24	365	1,445,400	0.00005	72	0.0087	12,575
Primary Crusher	165	24	365	1,445,400	0.0001	145	0.0024	3,469
Conveyor	165	24	365	1,445,400	0.000013	19	0.001	1,445
Conveyor to Dry Tower	165	24	365	1,445,400	0.000013	19	0.001	1,445
6 x 16 Screen	165	24	365	1,445,400	0.00005	72	0.0087	12,575
Single sand screw	350	24	365	3,066,000	0	0	0	-
Mason Sand Conveyor	350	24	365	3,066,000	0	0	0	-
Double sand screw	350	24	365	3,066,000	0	0	0	-
Concrete Sand Screw	350	24	365	3,066,000	0	0	0	-
<b>TOTAL EMISSIONS</b>							254	18,935

<sup>a</sup>AP-42 emissions factors from Table 11.19.2.2-1 in AP-42 11.19.2 Crushed Stone Processing

**Eagle Harbor Sand & Gravel, Inc.**  
**Quarry - Portable Plant**  
**Eagle Harbor Operation - Proposed Capping Limits**

Equipment Type	Rated Hours		Days	TPA	Em Factor		Em Factor		
	TPH	Per Day	Per Year		PM2.5a (lb/ton)	PM2.5 (pounds)	PM10 <sup>a</sup> (lb/ton)	PM10 (pounds)	PM10 (tons)
Lokotrack LT1213 Impact Crusher	300	10	280	840,000	0.00010	84	0.0024	2,016	1.0
LT1213 Conveyor	300	10	280	840,000	0.000013	11	0.0087	7,308	3.7
Lokotrack ST2.8 5'x16' Screen	300	10	280	840,000	0.000050	42	0.0011	924	0.5
ST2.8 Oversize Conveyor 1	110	10	280	308,000	0.000013	4	0.0011	339	0.2
ST2.8 Midsize Conveyor 2	110	10	280	308,000	0.000013	4	0.0011	339	0.2
ST2.8 Undersize Conveyor 3	110	10	280	308,000	0.000013	4	0.0011	339	0.2
ST2.8 Under screen Conveyor 4	100	10	280	280,000	0.000013	4	0.0011	308	0.2
Portable Stacking Conveyor	100	10	280	280,000	0.000013	4	0.0011	308	0.2
Portable Stacking Conveyor	100	10	280	280,000	0.000013	4	0.0011	308	0.2
<b>TOTAL EMISSIONS</b>						<b>160</b>		<b>12,188</b>	<b>6.1</b>

<sup>a</sup>AP-42 emissions factors from Table 11.19.2.2-1 in AP-42 11.19.2 Crushed Stone Processing

**Eagle Harbor Sand & Gravel, Inc.**  
**Quarry - Portable Plant**  
**Eagle Harbor Operation - Potential to Emit Emissions**

Equipment Type	Rated Hours		Days	TPA	Em Factor		Em Factor		
	TPH	Per Day	Per Year		PM2.5a (lb/ton)	PM2.5 (pounds)	PM10 <sup>a</sup> (lb/ton)	PM10 (pounds)	PM10 (tons)
Lokotrack LT1213 Impact Crusher	300	24	365	2,628,000	0.00010	263	0.0024	6,307	3.2
LT1213 Conveyor	300	24	365	2,628,000	0.000013	34	0.0087	22,864	11.4
Lokotrack ST2.8 5'x16' Screen	300	24	365	2,628,000	0.000050	131	0.0011	2,891	1.4
ST2.8 Oversize Conveyor 1	110	24	365	963,600	0.000013	13	0.0011	1,060	0.5
ST2.8 Midsize Conveyor 2	110	24	365	963,600	0.000013	13	0.0011	1,060	0.5
ST2.8 Undersize Conveyor 3	110	24	365	963,600	0.000013	13	0.0011	1,060	0.5
ST2.8 Under screen Conveyor 4	100	24	365	876,000	0.000013	11	0.0011	964	0.5
Portable Stacking Conveyor	100	24	365	876,000	0.000013	11	0.0011	964	0.5
Portable Stacking Conveyor	100	24	365	876,000	0.000013	11	0.0011	964	0.5
<b>TOTAL EMISSIONS</b>						<b>500</b>		<b>38,132</b>	<b>19.1</b>

<sup>a</sup>AP-42 emissions factors from Table 11.19.2.2-1 in AP-42 11.19.2 Crushed Stone Processing

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operaton**  
 Portable Plant Genset

Caterpillar C-13 Engine  
 310 KW, 415 HP Diesel Generator  
 Emission Calculations

<b>Air Contaminant</b>	<b>CO</b>	<b>SO2</b>	<b>NOx</b>	<b>HC-TOC's</b>	<b>PM</b>
<b>AP-42 Emissions Factor</b>	6.68E-03	2.05E-03 (s)	3.10E-02	2.47E-03	2.20E-03
<b>Units</b>	lb/hp-hr	lb/hp-hr	lb/hp-hr	lb/hp-hr	lb/hp-hr
<b>Gr/Hr x factor = lb/hr</b>					
<b>Conversion Factor =</b>	0.00221	lb/gr			
<b>Horsepower (HP)</b>	415				
<b>Sulfur Content</b>	0.5%				
<b>Hours of operation</b>	2,800				
<b>Gallons per hour<sup>3</sup></b>	20.0		<b>Fuel Usage</b>		56,000

**Criteria Pollutant Emission Calculations**

CAS#	Name	AP-42 Emission Factors <sup>1</sup>	
		lbs/hr	lbs/yr
NY075-00-5	PM <sub>10</sub>	0.91	2,556
	PM <sub>2.5</sub> <sup>3</sup>	0.09	256
7446-09-5	SO <sub>2</sub>	0.43	1,191
NY210-00-0	NOx	12.87	36,022
630-08-0	CO	2.77	7,762
NY998-00-0	VOC	1.03	2,870

<sup>1</sup>AP-42 emissions calculated by multiplying emission factor by horsepower. SO<sub>2</sub>

is calculated by multiplying factor by percent sulfur content and by horsepower.

Annual emissions calculated by multiplying pounds per hour by annual hours of operation.

<sup>2</sup>AP-42 factor of 7,000 btu/hp/hr used to calculate gallons per hour. Diesel #2 fuel estimated to have 131,000 btu per gallon.

<sup>3</sup>PM<sub>2.5</sub> factor not listed in AP-42. The factor used in this table was estimated at 10% of the PM<sub>10</sub> value

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operaton**  
 Portable Plant Genset

Caterpillar C-13 Engine  
 310 KW, 415 HP Diesel Generator  
 Emission Calculations

**HAPs Emission Calculations**

Hazardous Air Pollutant (HAP'S) Emission Calculations Diesel Fueled Generator			
CAS#	Name	AP-42 Emission Factors <sup>1</sup>	Emissions <sup>2</sup>
107-02-8	Acrolein	7.88E-06	0.1
75-07-0	Acetaldehyde	2.52E-05	0.2
71-43-2	Benzene	7.76E-04	6.0
50-00-0	Formaldehyde	7.89E-05	0.6
91-20-3	Naphthalene	1.30E-04	1.0
108-88-3	Toluene	2.81E-04	2.2
1330-20-7	Xylene	1.93E-04	1.5
	<b>Total HAP's (Pounds per year)</b>		<b>11</b>
	<b>Total HAP's (Tons per year)</b>		<b>0.01</b>

<sup>1</sup>Emission Factors in Pounds Per MMBTU

<sup>2</sup>Emissions in pounds per year. Calculation based on dividing the emission factor by 7.3 and then multiplying the AP-42 emission factor by the total permitted fuel use



**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operaton**  
Portable Plant Genset

Caterpillar C-13 Engine  
310 KW, 415 HP Diesel Generator  
Emission Calculations

**PBTs Emission Calculations**

CAS#	Name	AP-42 Emission Factors <sup>1</sup>	Emissions <sup>2</sup>
000075-07-0	Acetaldehyde	2.52E-05	0.19
000107-02-8	Acrolein	7.88E-06	0.060
000071-43-2	Benzene	7.76E-04	5.953
000050-00-0	Formaldehyde	7.89E-05	0.605

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operaton**  
 Portable Plant Genset

Caterpillar C3.6 Engine  
 100 KW, 134 HP Diesel Generator  
 Emission Calculations

<b>Air Contaminant</b>	<b>CO</b>	<b>SO2</b>	<b>NOx</b>	<b>HC-TOC's</b>	<b>PM</b>
<b>AP-42 Emissions Factor</b>	6.68E-03	2.05E-03 (s)	3.10E-02	2.47E-03	2.20E-03
<b>Units</b>	lb/hp-hr	lb/hp-hr	lb/hp-hr	lb/hp-hr	lb/hp-hr
<b>Gr/Hr x factor = lb/hr</b>					
<b>Conversion Factor =</b>	0.00221	lb/gr			
<b>Horsepower (HP)</b>	134				
<b>Sulfur Content</b>	0.5%				
<b>Hours of operation</b>	2,800				
<b>Gallons per hour<sup>2</sup></b>	4.0		<b>Fuel Usage</b>		11,200

**Criteria Pollutant Emission Calculations**

CAS#	Name	AP-42 Emission Factors <sup>1</sup>	
		lbs/hr	lbs/yr
NY075-00-5	PM <sub>10</sub>	0.29	825
	PM <sub>2.5</sub> <sup>3</sup>	0.03	83
7446-09-5	SO <sub>2</sub>	0.14	385
NY210-00-0	NOx	4.15	11,631
630-08-0	CO	0.90	2,506
NY998-00-0	VOC	0.33	927

<sup>1</sup>AP-42 emissions calculated by multiplying emission factor by horsepower. SO<sub>2</sub>

is calculated by multiplying factor by percent sulfur content and by horsepower.

Annual emissions calculated by multiplying pounds per hour by annual hours of operation.

<sup>2</sup>AP-42 factor of 7,000 btu/hp/hr used to calculate gallons per hour. Diesel #2 fuel estimated to have 131,000 btu per gallon.

<sup>3</sup>PM<sub>2.5</sub> factor not listed in AP-42. The factor used in this table was estimated at 10% of the PM<sub>10</sub> value

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operaton**  
 Portable Plant Genset

Caterpillar C3.6 Engine  
 100 KW, 134 HP Diesel Generator  
 Emission Calculations

**HAPs Emission Calculations**

Hazardous Air Pollutant (HAP'S) Emission Calculations			
Diesel Fueled Generator			
CAS#	Name	AP-42 Emission Factors <sup>1</sup>	Emissions <sup>2</sup>
107-02-8	Acrolein	7.88E-06	0.0
75-07-0	Acetaldehyde	2.52E-05	0.0
71-43-2	Benzene	7.76E-04	1.2
50-00-0	Formaldehyde	7.89E-05	0.1
91-20-3	Naphthalene	1.30E-04	0.2
108-88-3	Toluene	2.81E-04	0.4
1330-20-7	Xylene	1.93E-04	0.3
	<b>Total HAP's (Pounds per year)</b>		<b>2</b>
	<b>Total HAP's (Tons per year)</b>		<b>0.00</b>

<sup>1</sup>Emission Factors in Pounds Per MMBTU

<sup>2</sup>Emissions in pounds per year. Calculation based on dividing the emission factor by 7.3 and then multiplying the AP-42 emission factor by the total permitted fuel use

**Eagle Harbor Sand & Gravel, Inc.**  
**Eagle Harbor Operaton**  
Portable Plant Genset

Caterpillar C3.6 Engine  
100 KW, 134 HP Diesel Generator  
Emission Calculations

**PBTs Emission Calculations**

<b>CAS#</b>	<b>Name</b>	<b>AP-42 Emission Factors<sup>1</sup></b>	<b>Emissions<sup>2</sup></b>
000075-07-0	Acetaldehyde	2.52E-05	0.04
000107-02-8	Acrolein	7.88E-06	0.012
000071-43-2	Benzene	7.76E-04	1.191
000050-00-0	Formaldehyde	7.89E-05	0.121