

## Kelly, Shaheerah

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**From:** Josh Butler <josh@elmcreekenv.com>  
**Sent:** Tuesday, April 10, 2018 12:19 PM  
**To:** Kelly, Shaheerah  
**Cc:** rcampbell@southlandholdings.com  
**Subject:** Re: Oscar Renda Contracting, Inc. GP Application  
**Attachments:** NGWS final bio opinion.pdf; 180410\_102-003\_PTE-Calculator\_v01.pdf

Good Afternoon, Shaheerah

Per your request, attached is the final biological opinion from the US Fish and Wildlife Service. Additionally, I've attached the updated PTE Calc forms that show the PTE for the non-stationary engines to be used at the facility.

Please let me know if you need anything else. Have a great rest of the week.

On Wed, Apr 4, 2018 at 1:37 PM, Kelly, Shaheerah <[Kelly.Shaheerah@epa.gov](mailto:Kelly.Shaheerah@epa.gov)> wrote:

Good Morning Josh,

We have almost completed our review of the Tribal Minor NSR General Permit application for a Source Stone Quarrying, Crushing, and Screening Facility. Please provide the following information so we may move forward on our review of the application for Oscar Renda Contracting.

1. Please provide emission estimates for use of the engine/generator. FYI, below are the emission estimates that were provided in the Tribal Minor NSR General Permit application.

## Potential To Emit Calculator for Stone Quarrying, Crushing, and Screening Plants

8/23/2016

Facility Potential to Emit (PTE) Summary

**FOR DETERMINING IF YOU NEED A PERMIT (does not include controls):**

Process	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Sand, Gravel, Rock Crushing, Screening, Conveying	1234.62	303.19	0.00	-	-	-	-
Storage Piles	1.24	0.59	0.09	-	-	-	-
Engine/Generator	0.00	0.0000	0.00	0.00	0.00	0.00	0.00
<b>Total Potential to Emit (tons/year)</b>	<b>1235.86</b>	<b>303.78</b>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**FOR DETERMINING PTE IF USING GENERAL PERMIT (includes controls in General Permit):**

Process	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Sand, Gravel, Rock Crushing, Screening, Conveying	18.40	10.50	0.14				
Storage Piles	1.24	0.59	0.09	-	-	-	-
Engine/Generator	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Potential to Emit (tons/year)</b>	<b>19.65</b>	<b>11.09</b>	<b>0.23</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

- Regarding the ESA consultation, the biological evaluation concludes that the proposed action would not violate any of the provisions of the Endangered Species Act (ESA) or Navajo Nation code requirements for endangered species. Please provide concurrence from the United States Fish and Wildlife Service of this conclusion for the ESA.

Contact me if you have any questions.

Thank you.

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Shaheerah Kelly

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## Potential To Emit Calculator for Stone Quarrying, Crushing, and Screening Plants

8/23/2016

**This workbook is designed to calculate the potential to emit of a sand, gravel, rock crushing, and screening facility without control devices.**

Directions - Enter the facility's information below in the yellow highlighted cells.

For the rock processing operations, input the number of machines in each category that are used in your operations.

For the conveying operations, enter the number of drop points associated with each crushing/screening operation.

For the truck loading and transport offsite, enter the number 1.

For the engines, input the total horsepower rating of all the stationary engines on site.

The potential to emit for the facility will be displayed under the "Output" tab. The criteria pollutant emission rate is calculated depending on the equipment used and the maximum rating of any stationary engines. The effect of any control devices is not considered.

### Facility Profile

Rock Processing Equipment	Number of Operations	Maximum Capacity (tons/hr)*	Number of Conveyor Drop Points	Description
Truck Unloading/Grizzly Feeder	5	200		Fragmented rock delivered to site and dumped into grizzly or crusher feeder
Primary Crusher (Output is 3 - 12 inches) and Screening	2	300	1	Rock that passes through the primary crusher. This rock is 3 to 12 inches in diameter after this step. Rock is screened, conveyed to a pile, and shipped offsite or conveyed to another processing step.
Secondary Crusher (Output is 1 - 3 inches) and Screening	0	0	0	Rock that passes through the secondary crusher. This rock is 1 to 3 inches in diameter after this step. Rock is screened, conveyed to a pile, and shipped offsite or conveyed to another processing step.
Tertiary Crusher (Output is 3/16 - 1 inches) and Screening	0	0	0	Rock that passes through the tertiary crusher. This rock is 3/16 to 1 inches in diameter after this step. Rock is screened, conveyed to a pile, and shipped offsite or conveyed to another processing step.
Fines Crusher (output is less than 3/16 inches) and Screening	0	0	0	Rock that passes through the fines crusher. This rock is less than 3/16 inches in diameter after this step. Rock is screened, conveyed to a pile, and shipped offsite.
Dry Sand and Gravel Screening**	3	300	2	Dry sand and gravel that passes through the screener. Dry sand and gravel is excavated, screened, classified for size, conveyed to a pile, and shipped offsite.
Truck Loading and Transport Offsite	5	200		Rock product that is shipped offsite.

\* If the maximum capacity of a piece of equipment is bottlenecked (reduced) by another piece of equipment operating in a 'train', enter the bottlenecked capacity.

\*\* If your sand and gravel screening operation processes saturated material, and uses wet processing methods, enter zero (0) for the inputs in this row.

Power Generation Equipment	Generator/Engine Size (Hp) (total) <sup>a</sup>	Sulfur Content of Diesel Fuel (%) <sup>a</sup>	Description
Stationary Diesel Electrical Generators w/ Rating Less Than or Equal to than 600 Hp	1,210	0.50%	A stationary engine is an engine that is used in a fixed location, or a nonroad (portable) engine that remains in one location for at least a full year.
Stationary Diesel Electrical Generators w/ Rating Greater than 600 Hp	0	0.50%	

<sup>a</sup>No stationary engines will be located at this facility. The engines will be nonroad (portable) engines which will not operate at a location for more than 12 consecutive months at a time.

Storage Piles		Description
Rock Product in Storage Piles (tons)	168,462	Average Amount of Crushed Rock Product Stored in Storage Piles During the Year (tons). Default value is one week's production.
Moisture Content of Storage Piles (%)	1.5%	Moisture content of the storage piles. If operations are controlled with water sprays, include this in your estimate. Default value for uncontrolled operations is 0.7%. Default value for controlled operations is 2%.
Mean Wind Speed (mph)	15.00	Average wind speed at the site.

# Potential To Emit Calculator for Stone Quarrying, Crushing, and Screening Plants

8/23/2016

## Facility Potential to Emit (PTE) Summary

### FOR DETERMINING IF YOU NEED A PERMIT (does not include controls):

Process	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Sand, Gravel, Rock Crushing, Screening, Conveying	1234.62	303.19	0.00	-	-	-	-
Storage Piles	1.24	0.59	0.09	-	-	-	-
Engine/Generator	1.75	1.7489	1.75	10.86	3.71	42.40	13.32
<b>Total Potential to Emit (tons/year)</b>	<b>1237.61</b>	<b>305.53</b>	<b>1.84</b>	<b>10.86</b>	<b>3.71</b>	<b>42.40</b>	<b>13.32</b>

### FOR DETERMINING PTE IF USING GENERAL PERMIT (includes controls in General Permit):

Process	Pollutant						
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Sand, Gravel, Rock Crushing, Screening, Conveying	18.40	10.50	0.14				
Storage Piles	1.24	0.59	0.09	-	-	-	-
Engine/Generator	1.75	1.75	1.75	10.86	3.71	42.40	13.32
<b>Total Potential to Emit (tons/year)</b>	<b>21.40</b>	<b>12.84</b>	<b>1.97</b>	<b>10.86</b>	<b>3.71</b>	<b>42.40</b>	<b>13.32</b>

Maximum Throughputs, Based on Equipment Capacity	
Operation Description	tons/year
Truck Unloading - Fragmented Stone	8,760,000
Primary Crushing and Screening	5,256,000
Secondary Crushing and Screening	0
Tertiary Crushing and Screening	0
Fines Crushing and Screening	0
Dry Sand and Gravel Screening	7,884,000
Conveyor Transfer Points (total)	21,024,000
Truck Loading - Conveyor, crushed stone	8,760,000

Maximum Fuel Usage, Based on Engine Size <sup>a</sup>		
Operation Description	gal/year	gal/month
Diesel Engine (<= 600 hp)	541,467	45,122
Diesel Engine (> 600 hp)	0	0

# Potential To Emit Calculator for Stone Quarrying, Crushing, and Screening Plants

4/10/2018

## Emissions from Generator/Engine(s)

Diesel Engine <= 600 Hp: **1,210** total hp  
 Diesel Engine > 600 Hp: **0** total hp

### Total Engine PTE (ton/yr)

PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
<b>1.75</b>	<b>1.75</b>	<b>1.75</b>	<b>10.86</b>	<b>3.71</b>	<b>42.40</b>	<b>13.32</b>

Engine Type: **Diesel Engine (<= 600 hp)** Used: **Yes**

Emission Factor<sup>1</sup> (lbs/hp-hr)  
 Potential to Emit (ton/yr)

Pollutant						
PM <sup>2</sup>	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>2</sup>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC <sup>3</sup>
0.00033	0.00033	0.00033	0.00205	0.0007	0.008	0.00251
<b>1.75</b>	<b>1.75</b>	<b>1.75</b>	<b>10.86</b>	<b>3.71</b>	<b>42.40</b>	<b>13.32</b>

### Note:

1. Emission factors based on EPA Tier 4 emission standards.
2. Assume PM and PM<sub>2.5</sub> emissions are equal to PM<sub>10</sub> emissions.
3. Assume TOC (total organic compounds) emissions equal to VOC emissions.

### Methodology

Potential to Emit (ton/yr) = total horsepower (hp) x Emission Factor (lb/hp-hr) x 8,760 hr/yr x 1 ton/2000 lb

Engine Type: **Diesel Engine (> 600 hp)** Used: **No** Sulfur Content: **0.50 %**

Emission Factor<sup>1</sup> (lbs/hp-hr)  
 Potential to Emit (ton/yr)

Pollutant						
PM	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>2</sup>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC <sup>3</sup>
0.0007	0.0007	0.0007	0.004045	0.024	0.0055	0.000705
<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### Note:

1. Emission factors are from Chapter 3.4, Tables 3.4-1 and 3.4-2 for Large Stationary Diesel and Dual Fuel Engines (updated 10/96).
2. Assume PM<sub>2.5</sub> emissions are equal to PM<sub>10</sub> emissions.
3. Assume TOC (total organic compounds) emissions equal to VOC emissions.

### Methodology

Potential to Emit (ton/yr) = total horsepower (hp) x Emission Factor (lb/hp-hr) x 8,760 hr/yr x 1 ton/2000 lb

<b>Fuel Usage (gal/yr)</b>	<b>541,467</b>
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### Methodology:

Fuel Usage (gal/yr) = Total Engine Horsepower (hp) x 8,760 hr/yr x 7,000 Btu/hp-hr x 1 lb fuel/19,300 Btu x 1 gal/7.1 lb