

Response to DEC NOIA 5/3/13
Response to comment 5. Air Quality

As you know, AP-42 section Chapter 11 does not include emission factors for primary and secondary crushing of stone. The revised Background Information for Revised AP-42 Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing memorandum (May 12, 2003) presents the background information that was used to develop the revised AP-42 Section 11.19.2 on crushed stone processing and pulverized mineral processing. According to the background document, however, the emission factors for tertiary stone crushing can be used as an upper limit to primary and secondary crushing.

The EPA's AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants (March 1990) consolidates all available emissions factors by source classification code (SCC), and can be used when other estimates of emissions cannot be supplied. The sources of the emissions factors used include AP-42, its various supplements, and other EPA documents such as the NEDS SCC/Emission Factor Listing – PM10 (2nd Edition).

On review of the table in the DEIS containing projected emissions for the processing plant, rather than using EPA's AIRS Facility Subsystem emissions factors, the factors for tertiary crushing were used, as suggested in May 2003 background document.

The asterisk reference for the tables in the appendix for the processing plant emissions calculations for PM_{2.5} and for PM₁₀ should therefore state that the AP-42 emission factor for tertiary crushing was used in performing the calculations. A table showing the correction to the reference for the appendix is provided herein.

FRONTIER STONE, LLC
DEC ID #8-3436-00033
AIR EMISSIONS CALCULATIONS

Processing Plant
Emissions calculations for PM2.5

	<u>Thruput</u>	<u>Emission Factor</u>	<u>PM2.5 Emissions</u>	<u>Control Efficiency</u>	<u>PM2.5 Emissions</u>
Primary Crusher*	350,000	1.00E-05	3.5	0%	3.5
Secondary Crusher*	350,000	1.00E-05	3.5	0%	3.5
Triple Deck Screen	350,000	5.00E-05	52.5	0%	52.5
Single Deck Screen	350,000	5.00E-05	17.5	0%	17.5
Single Deck Screen	350,000	5.00E-05	17.5	0%	17.5
Conveyor Belts (5 controlled)	350,000	1.30E-05	22.75	0%	22.75

TOTAL PM2.5 (lbs/yr) 117 0.058625
TOTAL PM2.5 (tons/yr) 0.058625

***No AP42 Emission factor available for primary & secondary crushing, tertiary crushing factor used**

Emissions calculations for PM10

	<u>Thruput</u>	<u>Emission Factor</u>	<u>PM10 Emissions</u>	<u>Control Efficiency</u>	<u>PM10 Emissions</u>
Primary Crusher*	350,000	5.40E-04	189	0%	189
Secondary Crusher*	350,000	5.40E-04	189	0%	189
Triple Deck Screen	350,000	7.40E-04	777	0%	777
Single Deck Screen	350,000	7.40E-04	259	0%	259
Single Deck Screen	350,000	7.40E-04	259	0%	259
Conveyor Belts (5 controlled)	350,000	4.60E-05	80.5	0%	80.5

TOTAL PM10 (lbs/yr) 1,754 0.8768
TOTAL PM10 (tons/yr) 0.8768

Facility will run on line-power (no stationary combustion sources)