



**FROM:** Christopher Kissinger *CK* 1/10/24  
New Source Review Section

**THRU:** Tom Bianca, P.E. *TJB* 1/10/24  
West Permitting Section Chief

**TO:** William R. Weaver *WRW* 1/12/24  
Air Program Manager

**DATE:** January 10, 2024

**RE:** Specialty Granules LLC  
Charmian & Pitts Quarries  
State-Only Operating Permit Renewal No. 01-05016  
Hamiltonban Township, Adams County

### ***Background***

The draft permit and review memo were distributed for comment on July 27, 2018 to Mr. Matthew Watson, Specialty Granules LLC (SGI); and Mr. David Bubbenmoyer, DEP District Supervisor. No comments were received from Mr. Bubbenmoyer. SGI responded with comments via email on July 31, 2018. These issues are addressed in the “Re-Review” sections of this memo.

The Pa. Bulletin notice was published on June 14, 2018 (48 Pa. B 4130). The only public comment received was from an advocacy group called the Friends of Tom's Creek (FOTC). The comment from FOTC stated that, *“Friends of Toms Creek objects to the reissuance of this permit. The stone being mined by Specialty Granules, Inc. is reported to contain naturally occurring asbestos and other contaminants. We request that a toxicology study be undertaken to ensure that is not the case. If asbestos or other dangerous contaminants, such as silicates, are crushed at this location, we demand to know what steps are taken to ensure that these dangerous matters are not airborne or otherwise released into our environment.”*

In the process of researching this comment, DEP's Air Program became aware that the same group had raised similar issues with DEP's Mining Program with regard to a pending mining expansion permit for this facility. Therefore reissuance of the facility's air permit was held in abeyance while DEP's Air and Mining Programs looked further into the issues raised by these public comments. These matters were ultimately addressed with the inclusion in the 6/26/20 Northern Tract Quarry (NTQ) Mining Permit No. 01180301, of provisions regarding mineral identification and management, dust mitigation measures, and asbestos monitoring and mitigation measures. The 6/26/20 NTQ Mining Permit No. 01180301 also made these provisions applicable to the Charmian Plant Surface Mining Permit No. 6477SM5.

With regard to the FOTC concern regarding silicates, which was also raised in the context of DEP's review of NTQ Mining Permit No. 01180301, DEP's comment and response document for the NTQ permit stated in relevant part, in the response to Comment 428, that:

... the applicant's 12/11/19 technical deficiency response letter states that, *“The metabasalt processed at Pitts Quarry contains 4 to 12% crystalline silica. The facility adheres to the requirements of MSHA to control exposure to airborne contaminants and ensure the protection of employee health. See answer to*

*items 21 and 22. As part of its industrial hygiene program, SGI collects and analyzes air samples for respirable dust on a quarterly basis. The results of this sampling are attached (Attachment L). Additional historic results associated with sampling and analyses for respirable dust are included in Appendix G ."* Also, Per the applicant's 2/18/20 second technical deficiency response letter, *"The data provided in Attachment L to SGI's December 11, 2019 Technical Deficiency Letter Response demonstrate that SGI's operations do not and will not generate concentrations of airborne silica that would pose an undue risk to public health beyond the boundaries of the Charmian facility. These data, which result from the analyses of samples collected from predominantly indoor sampling locations, indicate that the vast majority of samples collected by SGI over the past two decades contain silica levels that are below the threshold limit value ("TLV") adopted by MSHA for the protection of workers. The MSHA TLV assumes that mine workers can be safely exposed, without personal protective equipment, to respirable dust at the level of the TLV for a full 8-hour shift each and every work day of their careers. Furthermore, as noted above, the indoor air associated with SGI's mineral processing activities passes through a baghouse before being emitted outdoors. To the extent that any airborne silica particles might pass through or otherwise evade the baghouse, dilution in the ambient air prevents any meaningful concentrations of airborne silica from reaching off-site receptors, and certainly not at levels that would approach the TLV or otherwise pose a risk to public health."* DEP concurs with these conclusions

With regard to the FOTC concern regarding asbestos which was also raised in the context of DEP's review of NTQ Mining Permit No. 01180301, DEP's comment and response document for the NTQ permit stated in relevant part, in the response to Comment 72, that:

During SGI's geologic characterization activities for the proposed Northern Tract Quarry, 17 rock core holes were drilled throughout the proposed mining area. From these 17 cores, 40 samples were collected representing each rock core boring and each planned 50-foot mining interval throughout the proposed mining area, and analyzed for naturally occurring asbestos. The samples were analyzed in April 2017 using polarized light microscopy (PLM) method EPA/600/R-93/116, with a detection limit of 0.1%. The sample results were reported to the Department on November 12, 2018. Of the 40 samples, three detected the presence of actinolite, with a maximum concentration of 0.5%. Following a review of these results, the Department required, in a technical deficiency letter dated September 30, 2019, that the 40 samples be re-analyzed using transmission electron microscopy (TEM). SGI responded on October 15, 2019, proposing to re-analyze the 40 samples using a procedure based on the following: CARB 435, ASTM D5756, AHERA, EPA 600/R-93/116, and ISO 22262-2. This procedure was approved by the Department on December 4, 2019. The sample results were reported to the Department on January 17, 2020. Of the 40 samples, eight detected the presence of actinolite, with a maximum concentration of 6.2%. Additionally, the Department collected 5 samples from SGI's rock cores on December 19, 2019 in addition to 5 split samples collected the same day, which were sent to an independent laboratory for analysis via PLM and TEM. Of the 10 PLM results of the Department's samples, eight detected the presence of actinolite, with a maximum concentration of 5.25%. Of the 10 TEM results of the Department's samples, eight detected the presence of actinolite, with a maximum concentration of 13.0%. The [mining] permit will include a monitoring plan for asbestos that includes regular perimeter monitoring and periodic activity based and source material monitoring to ensure that asbestos does not leave the permit area in harmful concentrations. The activity based monitoring will include the monitoring of truck traffic within the permit area.

Pursuant to the 6/26/20 NTQ Mining Permit No. 01180301, the facility is subject to an Asbestos Monitoring and Mitigation Plan (AMM Plan). This plan was revised effective 10/3/22, to ensure that the sampling locations are at the perimeter of the operation, and are representative of the ambient air. The plan was also revised to provide more meaningful follow-up sampling intervals. The plan generally requires mitigation actions, and more frequent monitoring, if air sampling shows levels of small asbestos fibers ( $\geq 0.5 \mu\text{m}$  in length) which exceed 0.01 fibers/cc. It should be noted that small asbestos fibers (SAF) are not the subject of current OSHA or

MSHA standards. The MSHA workplace standard applicable to this facility is an 8-hour time-weighted-average threshold of 0.1 fibers/cc, which utilizes a 5 µm fiber length. There have been only eight perimeter monitoring exceedances, and two activity-based sampling exceedances, of the SAF action level in the AMM Plan since the revised plan was implemented in the fall of 2022. All of these were well below the MSHA standard.

Based on the above information, DEP believes the presence of asbestos and silicates in the rock being processed at the facility has been appropriately characterized, and is being appropriately managed pursuant to the 6/26/20 NTQ Mining Permit No. 01180301, in order to prevent offsite health impacts. DEP plans to incorporate by reference into the Air Permit, the Mining Permit Conditions 16, 17 and 18 regarding mineral identification and management, dust mitigation measures, and asbestos monitoring and mitigation measures.

### ***Updates to Review of Air Permit***

The current air permit for this facility was issued on 3/20/13, was amended on 4/15/14, and had a nominal expiration date of 3/31/18, although the permit has been automatically continued pending the issuance of the renewal permit per the provisions of 25 Pa. Code Section 127.446. There were four (4) Requests for Determination (RFD's) since the current permit was issued. One of these included a de minimis increase. The facility also had a second de minimis increase that was not associated with an RFD. The original draft permit renewal was posted for public comment on 7/14/18 and had already incorporated two of the RFD's. The remaining two RFDs and the second de minimis increase will now also be addressed in the permit.

RFD #0898 (2/6/14): This RFD approved the replacement of Control ID H03, resulting in no change to PM emissions. This replacement was exempt from plan approval requirements.

RFD #2101 (9/23/19): This RFD approved the replacement of the Two-Conveyor System part of Source 403—Waste Fines Disposal System. The system was replaced by a single reversible conveyor system. No change to control configurations resulted as the system new system is controlled at the same point by control H02. This replacement resulted in a reduction in PM emissions due to the reduction in conveyor transfer points and was exempt from plan approval requirements.

RFD #2118 and First De Minimis Increase (6/29/20): This RFD approved the addition of an air separator, to process cleaner Anti-Skid #8 and #10 aggregate at the Aggregate Plant. The installation was deemed a de minimis increase in PM<sub>10</sub> and exempt from plan approval requirements.

RFD #1228 (9/10/15): This RFD authorized the replacement of the 5B conveyor part of the Source 216—Dedusting and Oiling. Per item 2 above, the CPV-4 PowerCore was added to replace D11 Baghouse. The facility clarified the changes made with baghouse D11 and the PowerCore baghouse (D11A) via email on 9/16/20. The PowerCore replaced a pickup point of the D11 Baghouse only, not the unit itself. This pickup point controls Source 216—Dedusting and Oiling. Therefore, the CPV-4 PowerCore Baghouse will be added as a control unit for Source 216. The changes from this RFD had been addressed in SGI's comments on the 2018 draft permit renewal.

Second De Minimis Increase (5/12/23): SGI provided notice of a de minimis increase in PM<sub>10</sub> of 0.017 tpy for the installation of supplemental equipment at the Undersized Material Processing Plant (UMPP). The installation consists of a hopper and several conveyors for periodic truck loading of oversized material. The existing Control ID C420A baghouse will control the first conveyor transfer point which will divert from the existing process. All other equipment is outdoors and controlled by wet suppression. Facility-wide de minimis increases post-project increased to 0.058 tpy of PM<sub>10</sub>.

Comments made by SGI during the initial comment period were addressed in an addendum memo by Mr. Ranjan Roy of DEP, dated 9/7/18, and are quoted as follows:

“

1. GP3-01-05016A was issued on 7/9/18 to install a portable aggregate plant operated by electricity. The GP3 has expiration date of 6/30/23. The equipment authorized as per the GP3 was commissioned effective 8/13/18. During site inspection on 8/21/18, the aggregate plant was operating. This GP3 is not presently being incorporated into the State-only permit.
2. RFD #1228 authorized replacement of baghouse D11. By email 8/23/18, the company have connected the new baghouse PowerCore (Control ID D11A, capacity 2,500 cfm) to Source ID 216. “G11 Dedusting and Oiling”. This change will be made upon further verification of all controls to specific sources and then the permit maps will be updated, as noted below.
3. Section H item #009: Baghouse list was updated based on the company comments during inspection of the site on 8/21/18, except Carter Day C unit, referenced their e-mail on 8/23/18. A final list of sources controlled is still needed for this unit.

Table 1 provides a summary of the site inventory list at re-review (changes since the initial 2018 renewal review are in bolded red font):

**Table 1—Re-Review Site Inventory List**

Source	Name	Control	Control ID
015	Dryer Plant (400)	Astec Baghouse (DC435)	C015C
016	Engine Generator, CAT C13, CI RICE, 601 HP, 2016	---	N/A
051	Headlap Granule Plant (HGP), [3 Cone Crushers, 250 TPH Each]	HGP: Donaldson Torit Baghouse (DC101A) HGP: Donaldson Torit Baghouse (DC102A) HGP: Donaldson Torit Baghouse (DC103A) HGP: Donaldson Torit Baghouse (DC104A)	C051A C051B C051C C051D
199	Overland Conveyor	Water Sprays / Road Wetting	C000
200B	Secondary Crusher (Nordberg or Equivalent)	Water Sprays / Road Wetting	C000
201	Primary Jaw Crusher (Fuller or Equivalent)	Water Sprays / Road Wetting	C000
202	Feeders 80, 85 & 90	Water Sprays / Road Wetting	C000
208	Stand-By/Old Rotary Dryer Plant	Torit Donaldson 484 RWF 12 AW Baghouse	D08
209	Mill Feed Storage Silos	Torit Donaldson 484 RWF 12 AW Baghouse	D08
210	“A” Mill – Elevators & Screens	Johnson-March (No. 1) Torit Donaldson 484 RWF 12 AW Baghouse	D10 C106
210A	“A” Mill – N. Side	Donaldson H Baghouse	D12
211	“B” Mill – Elevators & Screens	Johnson-March (No. 2) Torit Donaldson 484 RWF 12 AW Baghouse	D11 C106
211B	“B” Mill – S. Side	Donaldson H Baghouse	D12
213B	Storing Colored Granules	Johnson-March (No. 1)	D10
215A	Storing Granules	Johnson-March (No. 1)	D10
216	G11 Dedusting and Oiling	Torit-Day Baghouse Carter-Day 72RJ60 <b>CPV-4 PowerCore Baghouse</b>	D16 F04 <b>D11A</b>
217	Conveyor (987)	Pulse King M100 Baghouse	D02

**Table 1—Re-Review Site Inventory List**

Source	Name	Control	Control ID
		Pulse King M200 Baghouse Carter-Day 276 RFB Torit Donaldson 484 RWF 12 AW Baghouse	D04 D09 C106
218	Gyradisc (310) & Screening	Pulse King M100 Baghouse Pulse King M200 Baghouse	D02 D04
219A	Remco VSI Crusher 3	Carter-Day 276 RFB	D09
302	Granule Storage/Transfer	Donaldson Torit Baghouse 484RF (No. 4) Donaldson Torit Baghouse 484RF (No. 5)	C104 C105
303	Rotary Preheater 1	Donaldson Torit Baghouse 484RF (No. 5)	C105
304	Rotary Preheater 2	Donaldson Torit Baghouse 484RF (No. 5)	C105
305A	Coloring Plant System 1	Donaldson 3 Baghouse	G01
308A	Coloring Plant System 4	<b>Fisher-Klosterman Venturi</b> Donaldson 1 Baghouse	<b>G02</b> G05
309A	Coloring Plant System 2	<b>Fisher-Klosterman Venturi</b> Donaldson 2 Baghouse	<b>G02</b> G03
311A	Coloring Plant System 3	<b>Fisher-Klosterman Venturi</b> <b>Donaldson 2 Baghouse</b>	<b>G02</b> <b>G03</b>
317	Waste Storage System	Carter-Day 232RF8 (No. 5)	H04
401B	Natural Color Granules Loading	Carter-Day 232RF8 (No. 5) Donaldson Torit Baghouse 484RF (No. 4) Donaldson Torit Baghouse 484RF (No. 5)	H04 C104 C105
402A	Secondary Crusher, Remco, 250 TPH	Donaldson Torit 484RFWAW12X, 30000CFM Baghouse, Replaced D09	H01A
403	Waste Fines Disposal System	Carter-Day D 72RJ48 <b>Donaldson 123RFWAW10</b>	H02 <b>H03A</b>
420	Undersized Material Process Plant, 75 T Classifier	65,000 SCFM Donaldson 905RFPW12 15,000 SCFM Metso 276RF12	C420A C420B
500	Haul Road	Water Sprays / Road Wetting	C000
510	Intermediate Plant Crusher & Screening (315), Nordberg or Equivalent	Torit Donaldson	J01

***Fugitive Emissions Determination:***

It should be noted that the facility emits fugitive particulate emissions from various process sources and from roadways and other surface areas. Not all of the particulate emissions from the facility are fugitive; some are emitted through flues from air pollution control devices. Inhalable particles (PM<sub>10</sub>) and fine inhalable particles (PM<sub>2.5</sub>) from both flue and fugitive emissions combined, are each limited to less than major source levels by the facility's synthetic minor status. EPA regulates inhalable particles, but particles of sand and large dust, which are larger than 10 micrometers, are not regulated by EPA. These larger particles, when aggregated with finer particles, are referred to as Total Particulate Matter (TPM), or Total Suspended Particulate (TSP). There is no major source level for TPM/TSP, however it is a component of fugitive emissions regulated under 25 Pa. Code Section 123.1 and 123.2.

As part of its review of the air permit renewal at this site, DEP re-assessed SGI's annual air emission calculations, in order to verify the emission factors used, and to determine the facility's potential-to-emit. This

re-assessment can be found in a supplemental memo dated 1/3/24 that is attached to this memo. It is estimated that the SGI facility emitted 142.34 tons TSP/TPM in 2022 from both fugitive and stack emissions, and that 57.37 tons was emitted from 25 Pa. Code Section 123.1(a)(1)-(8) exempt sources (roadways, stockpiles, and blasting) and that 70.00 tons was emitted from sources not exempt under 25 Pa. Code Section 123.1(a)(1)-(8). The TSP/TPM emissions potential from the entire facility (fugitive plus stack) is estimated at 237.01 tpy. Also, the TSP/TPM potential to emit (PTE) of fugitive (not stack) emissions, from sources not exempt under 25 Pa. Code Section 123.1(a)(1)-(8) is estimated at 135.51 tpy. Also, the PM<sub>10</sub> and PM<sub>2.5</sub> emissions from the facility in 2022 (both fugitive and stack emissions) are estimated at 59.72 tons and 22.95 tons, respectively.

The facility implements extensive and appropriate air pollution control measures to minimize fugitive particulate emissions (TPM/TSP, PM<sub>10</sub>, PM<sub>2.5</sub>) including the use of baghouses, a scrubber, process water sprays and road wetting, mineral identification and management, truck tarping, on-site speed limits, and asbestos monitoring and mitigation measures. In accordance with 25 Pa. Code Section 123.1(a)(9), DEP has determined that the fugitive particulate emissions into the atmosphere from the facility, after appropriate control, in addition to the stack emissions from controlled sources, are of minor significance with respect to causing air pollution, and are not expected to prevent or interfere with attainment or maintenance of an ambient air quality standard based on the following considerations:

- PM<sub>10</sub> and PM<sub>2.5</sub> emissions are limited by the air permit to less than major source levels.
- There is no ambient air standard or major source level for TPM/TSP, and it is understood that many of these larger particles tend not to travel far from their point of origin. For instance, per EPA's AP-42 Section 13.2, Fugitive Dust Sources, *"Results indicate that, for a typical mean wind speed of 16 km/hr (10 mph), particles larger than about 100 µm are likely to settle out within 6 to 9 meters (20 to 30 feet [ft]) from the edge of the road or other point of emission. Particles that are 30 to 100 µm in diameter are likely to undergo impeded settling. These particles, depending upon the extent of atmospheric turbulence, are likely to settle within a few hundred feet from the road. Smaller particles... have much slower gravitational settling velocities and are much more likely to have their settling rate retarded by atmospheric turbulence."*
- Adams County is not classified as nonattainment for any of the current National Ambient Air Quality Standards (NAAQS) for particulate, including PM-10 (1987), PM-2.5 (1997), PM-2.5 (2006), and PM-2.5 (2012)
- As a synthetic minor source for PM<sub>10</sub> and PM<sub>2.5</sub>, the SGI facility is not expected to meaningfully affect local or regional compliance with ambient air quality standards.
- As noted earlier in this memorandum, the facility is subject to an Asbestos Monitoring and Mitigation Plan (AMM Plan). Extensive ambient monitoring for asbestos at the facility under the current AMM Plan has revealed asbestos levels well below the MSHA workplace standard, even when counting small asbestos fibers (SAF) that are not covered by that standard. Furthermore, DEP plans to incorporate by reference into the Air Permit, the Mining Permit Conditions 16, 17 and 18 regarding mineral identification and management, dust mitigation measures, and asbestos monitoring and mitigation measures.
- As noted earlier in this memorandum with regard to silicates, extensive sampling conducted by SGI as part of its industrial hygiene program, indicates generally low levels of silicates emanating from the stone processing dust, even at indoor portions of the processing operations, and that the combined effects of existing dust controls and ambient dispersion would only further ensure that any ambient silicate levels leaving the site are well below the applicable MSHA standard.
- The facility was last inspected by DEP on 9/28/21, and no visible fugitive or flue emissions were observed during the inspection. DEP SCRO and SERO Air Quality staff, and Cambria Mining Office staff, also visited the facility on 11/14/23 to observe SGI's asbestos monitoring network. During this visit, DEP staff observed all operating sources and travelled the perimeter of the site. No visible or fugitive emissions were observed.
- DEP has not received any citizen air pollution complaints about this facility since 2018.

### ***Finalized Operating Permit Changes***

Below is a summary of all changes made to the original 2018 draft permit for this review:

- **Section A, Site Inventory List:**
  - **Control ID D11A (Page 5):** CPV-4 PowerCore Baghouse added.
  - **Control ID H03A (Page 5):** Donaldson 24RFWAW10 Baghouse added.
  - **Stack ID T11A (Page 6):** PowerCore Stack added.
  - **Stack ID X03A (Page 6):** Donaldson H03A Stack added.
- **Section A, Permit Maps:**
  - **Source ID 216 (Page 8):** Control ID D11A added to map.
  - **Source ID 308A (Page 9):** Control ID G05 added to map.
  - **Source ID 309A (Page 9):** Control ID G02 added to map.
  - **Source ID 311A (Page 9):** Control device G05 replaced by G02 and G03.
  - **Source ID 403 (Page 9):** Control ID H03A added to map.
  - **Source ID 420 (Page 9):** Existing Stack ID Z01 (Fugitives, Plant) added to map to represent addition under 2023 De Minimis Increase
- **Section B, Conditions #023 & #024 (Page 18):** New statewide boilerplate conditions were added to address emission inventory reporting.
- **Section C:**
  - **Condition #014 (Page 22)** Air Quality Program phone number and Emergency Hotline information updated due to changes in contact information since original draft permit.
  - **Condition #015 (Page 22):** Emission inventory condition was revised since it is now addressed in Section B, Condition #023. The condition now reads, *“All emission reports required by Section B shall be submitted through Greenport/AES.”*
  - **Condition #018:** Added the following condition addressing DEP’s 123.1 fugitive emissions determination for the facility: *“The Department has determined the PM10 and PM2.5 emissions described in Condition 006 remaining after appropriate control, and if otherwise in compliance with applicable regulations, are of minor significance with regard to causing air pollution, and will not prevent or interfere with the attainment or maintenance of an ambient air quality standard. The Department has further determined the facility has a TSP emissions potential of approximately 240 tons per year, and that these TSP emissions, after appropriate control, and if otherwise in compliance with applicable regulations, are also of minor significance with regard to causing air pollution, and will not prevent or interfere with the attainment or maintenance of an ambient air quality standard. It should be noted in this context that there is no ambient air quality standard for TSP.”*
  - **Condition #021 (Page 23):** Added the following condition addressing asbestos and dust mitigation:
    - ” This permit incorporates by reference the following conditions from DEP Noncoal Surface Mining Permit No. 01180301, except as provided below:
    - (a) Condition 16 (Mineral Identification and Management Guide)
    - (b) Condition 17 (Dust Mitigation Measures): *The plan referenced in this condition shall be the plan version dated 10/3/22, unless otherwise approved in writing by DEP.*
    - (c)- Condition 18 (Asbestos Monitoring and Mitigation Plan): *The plan referenced in this condition shall be the plan version dated 10/3/22, unless otherwise approved in writing by DEP.”*

- **Section D, Source 016 (Page 24):** NSPS Subpart 4I requirements removed from source conditions and moved to Section E, Group G 06.
- **Section E:**
  - **Group G 04 (Page 66):**
    - **Condition #001:** Updated EPA reporting address.
    - **Condition #002:** Consolidated NSPS Subpart UUU requirements into single condition.
  - **Group G 05 (Page 75):** Updated EPA reporting address.
  - **Group G 06 (Page 77):** New group created to house NSPS Subpart 4I requirements. NSPS requirements updated to most recent version and EPA reporting address updated.
- **Section H:**
  - **Item #006 (Page 87):** UMPP equipment list updated with oversized truck loading equipment added as part of the 2023 De Minimis Increase.
  - **Item #007 (Page 87):** (b) restructured to include the authorization of RFD #2118 in addition to #2101.
  - **Item #009 (Pages 87 & 88):** Baghouse list was finalized, and the following additional changes have been made:
    - Carter Day C replaced by Donaldson 24RFWAW10 Baghouse (H03A).
    - CPV-4 PowerCore (D11A) added.

### ***Recommendations***

The administrative requirements have been met and the compliance history is acceptable. I recommend that the state-only permit be issued.

Attachment: 1/3/24 Supplemental Memo re: Emission Factors

cc: OnBase





**FROM:** Christopher Kissinger *CK* 1/3/24  
New Source Review Section

**THRU:** Tom Bianca, P.E. *TJB* 1/10/24  
West Permitting Section Chief

**TO:** William R. Weaver *WRW* 1/12/24  
Air Program Manager

**DATE:** January 3, 2024

**RE:** Specialty Granules LLC  
Charmian & Pitts Quarries  
Review of Annual Air Emission Calculations  
Hamiltonban Township, Adams County

### ***Background***

As part of its review of SGI's air permit renewal application, DEP has reviewed SGI's annual air emission calculations, in order to verify the emission factors used. In so doing, DEP has determined that certain changes are appropriate to the emission factors used by SGI, in order calculate the facility potential-to-emit (PTE) of particulate pollutants. Attached to this memo are DEP's revised PTE and 2022 actual emission calculations for the SGI facility. Also attached to this memo are DEP's evaluations of questions and responses to SGI regarding the emission factors used. The following items should be noted about DEP's revised SGI calculations.

### ***General Issues***

1.) Control device dust capture efficiencies ranging from 95% to 99.5% have been estimated for the various affected processes based on (1) the extent of enclosure of the process equipment, (2) the range of the prevailing negative static pressures in the process equipment, (3) the approximate size distributions of the material handled, (4) the extent of wetting or coatings of the material handled, and (5) the potential for fugitive leaks from components such as solids discharge valves or non-enclosed portions of conveyors.

2.) The emission factors used by SGI's consultant for the Source 208 Dryer and eleven other similar sources included a value of 2.68 pounds per ton for total suspended particulate matter (TSP), 1.46 pounds per ton for PM<sub>10</sub>, and 0.83 pounds per ton for PM<sub>2.5</sub>. These emission factors were based on EPA AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control (SCC 3-05-038-35). Although the applicability of these factors to the sources is questionable, nevertheless, DEP believes the use of the Flash Dryer emission factor to be an overly conservative selection. Material in a flash dryer is pneumatically conveyed and exposed to hot air at high velocities, creating the opportunity for more emissions. This is not analogous to the rotary dryers/kilns in this process. After reviewing available emission factors, DEP notes the uncontrolled PM emission factor for a Sand Dryer (SCC 3-05-027-20) is 2.0 lbs/ton (AP-42 Table 11.19.1-1). AP-42 Chapter 11.19.1 covers Sand and Gravel Processing, of which roofing granules has historically been included under. Since the consultant's methodology resulted in higher factors, DEP accepts them as reasonably conservative.

3.) The emission factors used by SGI for blasting (Source 106) are 0.0005 pounds per ton for both TSP and PM<sub>10</sub> and 0.00005 pounds per ton for PM<sub>2.5</sub>. DEP has reviewed AP-42 and EPA methodologies for calculating

blasting emissions, including the supporting background documents. The only factors present for surface blasting are for coal mining operations and the documents indicate these may not be suitable for stone quarries where smaller blast areas are generally used. In EPA's "2020 National Emissions Inventory Technical Support Document: Industrial Processes – Mining and Quarrying," emission factors were outlined for metallic ore mining, non-metallic ore mining, and coal mining. Each subcategory uses western surface coal mining emission factors as the basis for blasting emissions. The document indicates a blasting emission factor for PM<sub>10</sub> of 0.00005 lb/ton. In conjunction with a stated PM<sub>10</sub>/TSP ratio of 0.4, and PM<sub>10</sub>/PM<sub>2.5</sub> ratio of 0.125, the blasting emission factors work out to be: TSP: 0.000125 lbs/ton; PM<sub>10</sub>: 0.00005 lbs/ton; PM<sub>2.5</sub>: 0.00000625 lbs/ton. Considering the background document information and EPA-utilized emission factors being a less conservative estimate of blasting emissions, DEP believes SGI's current emission factors to be a reasonable and conservative estimate.

4.) In the Controlled emission spreadsheet, some sources use AP-42 Table 11.19.2-2 Conveyor Transfer Point, but others use AP-42 Table 11.19.2-2 Conveyor Transfer Point (**controlled**). The reason for this is that some of the process equipment handles oiled product. SGI's consultant asserted that the equipment handling and screening oiled product would be like an enhanced form of wet suppression. It is applied to certain end products to prevent particle fragmentation. DEP deems this to be a reasonable assertion for these conveyors. (NOTE: The reason "controlled" factors are used at all in these calculations are because the AP-42 11.19.2 processes only account for control via wet suppression. No add-on PM control, such as a baghouse, is accounted for in the AP-42 factors for conveying.) The same logic applies to the use of controlled vs. uncontrolled factors for Screening in the SGI and DEP calculations. In the spreadsheet, each conveyor or screen marked with an asterisk (indicating oiled product) uses the "controlled" AP-42 factor.

5.) The emission factors used by SGI for Source 317 Loading and three other sources were 0.0003 pounds per ton for TSP, 0.0001 pounds per ton for PM<sub>10</sub>, and 0.000015 pounds per ton for PM<sub>2.5</sub>. It appears these factors were developed by SGI's consultant applying the TSP/ PM<sub>10</sub> ratio for "Conveyor Transfer Point" (SCC 3-05-020-06) to estimate TSP for Truck Loading, from the PM<sub>10</sub> factor for Truck Loading from AP-42 Table 11.19.2-2. In other words, the TSP/ PM<sub>10</sub> scaling factor of  $0.003/0.0011=2.72$  was applied to 0.0001 to arrive at a rounded 0.0003 pounds per ton of TSP factor for Loading. The PM<sub>2.5</sub> from Truck Loading was then estimated at 0.15 times the PM<sub>10</sub> factor, as noted above. DEP has also applied these factors to the similar source 107 – Loading, because the reasoning for SGI's consultant's chosen factors for that source were unclear.

6.) "Hauling" potential emissions are based on AP-42 Section 13.2.2, Unpaved Roads, which assesses factors such as precipitation, truck speed, % silt, truck weight, and vehicle miles travelled. Due to the significant unverifiable assumptions that would need to be made to apply this section to potential, rather than actual emissions, DEP has elected to use the facility's calculated 2021 Hauling emissions as representative amounts for PTE purposes. It should be noted that the last three years (2020-2022) for this facility, have similar Hauling emissions as follows, however 2021 is the highest:

**Haul Road Emissions (tons)**

<b>Year</b>	<b>TSP</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
2022	46.35	12.05	1.20
2021	48.02	12.48	1.25
2020	37.69	9.80	0.98

### ***DEP Changes to SGI Factors***

1.) In contrast to the approach taken by SGI's consultant of using a PM<sub>2.5</sub>/ PM<sub>10</sub> ratio of 0.1, DEP has concluded that it is more appropriate to assign a PM<sub>2.5</sub>/ PM<sub>10</sub> ratio of 0.15, in cases where there is no AP-42 emission factor available for PM<sub>2.5</sub>.

2.) The emission factors used by SGI for oilers, paint mixers, and one conveyor were 0.0014 pounds per ton for TSP, PM<sub>10</sub>, and 0.00014 pounds per ton for PM<sub>2.5</sub>. It appears that these were incorrectly derived from AP-42 5th Edition (1995), which only includes a PM<sub>10</sub> emission factor. DEP further concurs the oil coating applied to the granules is reasonably analogous to wet suppression for the purposes of inhibiting dust generation.

Consequently, DEP believes the use of the current AP-42 Table 11.19.2-2 emission factors for "Conveyor Transfer Point (controlled)" (SCC 3-05-020-06) to be a more reasonable estimate of PM emissions generated (prior to baghouse control) from these sources.

3.) For the 187 Screw Conveyor in Source 420, SGI used emission factors of 0.0014 pounds per ton for TSP, 0.0 pounds per ton for PM<sub>10</sub>, and 0.0000046 pounds per ton for PM<sub>2.5</sub>. DEP concludes that these factors were incorrect and that use of the AP-42 Table 11.19.2-2 emission factors "Conveyor Transfer Point (controlled)" (SCC 3-05-020-06) is reasonable in this case.

4.) The emission factors used by SGI for paint mixers (Sources 305A) and coolers (Sources 309, 311A, and 308A) were 0.0005 pounds per ton for both TSP and PM<sub>10</sub>, and 0.00005 pounds per ton for PM<sub>2.5</sub>. DEP concurs with SGI's logic that because all four of these sources involve either liquid contact with large granules or water spray cooling of large granules, that therefore the dust emissions are expected to be small. The PM<sub>10</sub> factor used is about 10x that listed for dust emissions from wet suppression-controlled conveyors listed in AP42 Table 11.19.2-2, which appears to be conservative. Setting the TSP and PM<sub>2.5</sub> factors equal to the PM<sub>10</sub> factor would also appear to likely overestimate those emissions. DEP therefore concludes that SGI's chosen factors are a reasonable over-estimate, except that DEP elects to assume that TSP=PM<sub>10</sub>=PM<sub>2.5</sub>.

5.) For the 420B - 510 Air Classifier, the TSP and PM<sub>10</sub> emission factors are from AP-42 Table 11.19.2-4 for "Classifiers (Dry) with Fabric Filter Control" (SCC 3-05-038-12). SGI used a 0.10 PM<sub>2.5</sub>/PM<sub>10</sub> ratio for the PM<sub>2.5</sub> factor, despite the existence of a PM<sub>2.5</sub> in AP-42. DEP believes it is appropriate to use the AP-42 factors when available, and so has used a PM<sub>2.5</sub> factor for this source of 0.0041 lbs/ton.

6.) As noted in Item 4 under General Considerations, above, In the Controlled emission spreadsheet, some sources use AP-42 Table 11.19.2-2 Conveyor Transfer Point, but others use AP-42 Table 11.19.2-2 Conveyor Transfer Point (**controlled**). In the spreadsheet, each conveyor or screen marked with an asterisk (indicating oiled product) is to use the "controlled" AP-42 factor. However, there were various items marked with an asterisk where SGI did not use the controlled factor, or vice versa. DEP has corrected the calculations to use the controlled factor for asterisked items, and the uncontrolled factor for un-asterisked items, as applicable. However it should be noted that the Source 213B Granules Bagger and Granules Loading sources, although marked with an asterisk indicating oiled product, use uncontrolled loading emission factors from AP-42, as there are no controlled factors for these items. DEP believes this approach is conservative and would tend to overestimate the emissions from these two sources.

#### ATTACHMENTS:

- SGI PTE spreadsheet showing DEP changes of certain SGI-provided factors
- SGI 2022 Actual emissions spreadsheet (revised to reflect DEP factors)
- DEP Assessment Tables of SGI's consultant's emission factor explanations
- SGI's consultant's emission factor explanations

cc: OnBase

SGI PTE Summary

<b>Item</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
PTE Stack	29.74	15.53	8.29
PTE Point Source Fugitive	110.67	56.40	28.82
PTE Open Air Source Fugitive	96.60	33.84	5.18
PTE Exempt Fugitive	71.77	24.36	3.54
PTE Non-Exempt Fugitives	135.51	65.88	30.47
PTE (Fug+Stack)	237.01	105.77	42.29

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions						
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr			
<b>QUARRY AND PRIMARY CRUSHING</b>																								
All Fugitive Emissions																								
Sources: 201, 200B, 199, 202 CONTROLLED WITH WATER SPRAYS																								
All Fugitive Emissions																								
Total Primary																								
<b>INTERMEDIATE CRUSHING</b>																								
<b>SOURCE 510</b>																								
<b>CONTROL COLLECTOR: DONALDSON "H" J01</b>																								
510	910 Conveyor	0.95	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.197	0.072	0.011	3.745	1.373	0.206	0.000	0.000	0.000	0.000	0.216	0.079	0.012	0.000
510	977 Conveyor	0.95	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.197	0.072	0.011	3.745	1.373	0.206	0.000	0.000	0.000	0.000	0.216	0.079	0.012	0.000
510	8 x 24 screen	0.98	300	8760	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5:PM10 ratio of 0.15	0.657	0.229	0.034	32.193	11.203	1.680	0.000	0.000	0.000	0.000	0.818	0.285	0.043	0.000
510	987 Conveyor	0.95	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.197	0.072	0.011	3.745	1.373	0.206	0.000	0.000	0.000	0.000	0.216	0.079	0.012	0.000
510	199 Elevator	0.99	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.039	0.014	0.002	3.903	1.431	0.215	0.000	0.000	0.000	0.000	0.059	0.022	0.003	0.000
510	979 Conveyor	0.95	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.197	0.072	0.011	3.745	1.373	0.206	0.000	0.000	0.000	0.000	0.216	0.079	0.012	0.000
510	5 1/2 Cone Crusher	0.98	300	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5:PM10 ratio of 0.15	0.142	0.063	0.009	6.954	3.091	0.464	0.000	0.000	0.000	0.000	0.177	0.079	0.012	0.000
<b>SOURCE 208, 209</b>																								
<b>CONTROL COLLECTORS: TORIT DAY "I" D08</b>																								
209	Rock Silos, 1C and 3C	0.99	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.039	0.014	0.002	3.903	1.431	0.215					0.059	0.022	0.003	0.000
<b>SOURCE 015</b>																								
<b>CONTROL COLLECTORS: AZTEC 435 C015C</b>																								
015	990 Conveyor	0.95	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.197	0.072	0.011	3.745	1.373	0.206	0.000	0.000	0.000	0.000	0.216	0.079	0.012	0.000
015	Dryer #400	0.995	300	8760	2.680	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	17.608	9.592	5.453	3503.9	1908.8	1085.2	0.445	0.445	0.445	1.334	35.129	19.139	10.881	1.334
015	991 Conveyor	0.95	300	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5:PM10 ratio of 0.15	0.197	0.072	0.011	3.745	1.373	0.206	0.000	0.000	0.000	0.000	0.216	0.079	0.012	0.000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>SOURCE 218, 208</b>																					
<b>CONTROL COLLECTOR: SINGLE PULSE KING M100 D02</b>																					
218	198 Elevator	0.99	400	8760	0.0030	0.0011	0.00017	0.053	0.019	0.003	5.203	1.908	0.286	0.000	0.000	0.000	0.000	0.079	0.029	0.004	0.000
218	138 Screen	0.98	180	8760	0.0250	0.0087	0.00131	0.394	0.137	0.021	19.316	6.722	1.008	0.000	0.000	0.000	0.000	0.491	0.171	0.026	0.000
<b>SOURCE 216, 218</b>																					
<b>CONTROL COLLECTOR: CARTERDAY F D09</b>																					
218	136 Screen (200)	0.98	400	8760	0.0250	0.0087	0.00131	0.876	0.305	0.046	42.924	14.938	2.241	0.000	0.000	0.000	0.000	1.091	0.380	0.057	0.000
218	Feeder 300 crusher	0.98	120	8760	0.0054	0.0024	0.00036	0.057	0.025	0.004	2.781	1.236	0.185	0.000	0.000	0.000	0.000	0.071	0.031	0.005	0.000
218	Feeder 310 crusher	0.98	120	8760	0.0054	0.0024	0.00036	0.057	0.025	0.004	2.781	1.236	0.185	0.000	0.000	0.000	0.000	0.071	0.031	0.005	0.000
218	Feeder 320 crusher	0.98	120	8760	0.0054	0.0024	0.00036	0.057	0.025	0.004	2.781	1.236	0.185	0.000	0.000	0.000	0.000	0.071	0.031	0.005	0.000
218	Feed Bin for 310/320	0.99	160	8760	0.0054	0.0024	0.00036	0.038	0.017	0.003	3.746	1.665	0.250	0.000	0.000	0.000	0.000	0.057	0.025	0.004	0.000
218	300 VS/4G VSI Crusher (340 V)	0.98	250	8760	0.0054	0.0024	0.00036	0.118	0.053	0.008	5.795	2.575	0.386	0.000	0.000	0.000	0.000	0.147	0.065	0.010	0.000
218	transfer box 310/320	0.99	160	8760	0.0030	0.0011	0.00017	0.021	0.008	0.001	2.081	0.763	0.114	0.000	0.000	0.000	0.000	0.031	0.012	0.002	0.000
216	3C Conveyor	0.95	150	8760	0.0030	0.0011	0.00017	0.099	0.036	0.005	1.872	0.687	0.103	0.000	0.000	0.000	0.000	0.108	0.040	0.006	0.000
216	9C Conveyor	0.95	150	8760	0.0030	0.0011	0.00017	0.099	0.036	0.005	1.872	0.687	0.103	0.000	0.000	0.000	0.000	0.108	0.040	0.006	0.000
<b>SOURCE 216, 218</b>																					
<b>CONTROL COLLECTOR: DOUBLE PULSE KING M200 D04</b>																					
218	48" gyradisc 310	0.98	160	8760	0.0054	0.0024	0.00036	0.076	0.034	0.005	3.709	1.648	0.247	0.000	0.000	0.000	0.000	0.094	0.042	0.006	0.000
218	957 Conveyor	0.95	160	8760	0.0030	0.0011	0.00017	0.105	0.039	0.006	1.997	0.732	0.110	0.000	0.000	0.000	0.000	0.115	0.042	0.006	0.000
218	958 conveyor	0.95	160	8760	0.0030	0.0011	0.00017	0.105	0.039	0.006	1.997	0.732	0.110	0.000	0.000	0.000	0.000	0.115	0.042	0.006	0.000
218	956 Conveyor	0.95	160	8760	0.0030	0.0011	0.00017	0.105	0.039	0.006	1.997	0.732	0.110	0.000	0.000	0.000	0.000	0.115	0.042	0.006	0.000
218	Feeder 300 crusher alt	0.98	120	8760	0.0030	0.0011	0.00017	0.032	0.012	0.002	1.545	0.567	0.085	0.000	0.000	0.000	0.000	0.039	0.014	0.002	0.000
216	17C Conveyor TP	0.95	60	8760	0.0030	0.0011	0.00017	0.039	0.014	0.002	0.749	0.275	0.041	0.000	0.000	0.000	0.000	0.043	0.016	0.002	0.000
<b>SOURCE 218, 402</b>																					
<b>CONTROL COLLECTOR: CARTERDAY B H01</b>																					
402A	Hopper for 300	0.99	250	8760	0.0030	0.0011	0.00017	0.033	0.012	0.002	3.252	1.192	0.179	0.000	0.000	0.000	0.000	0.049	0.018	0.003	0.000
402A	52C Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.121	1.144	0.172	0.000	0.000	0.000	0.000	0.180	0.066	0.010	0.000
402A	REMO 300 VS/4G	0.98	250	8760	0.0054	0.0024	0.00036	0.118	0.053	0.008	5.795	2.575	0.386	0.000	0.000	0.000	0.000	0.147	0.065	0.010	0.000
402A	53C Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.121	1.144	0.172	0.000	0.000	0.000	0.000	0.180	0.066	0.010	0.000
402A	20 Elevator	0.99	250	8760	0.0030	0.0011	0.00017	0.033	0.012	0.002	3.252	1.192	0.179	0.000	0.000	0.000	0.000	0.049	0.018	0.003	0.000
402A	GPS Screen	0.98	250	8760	0.0250	0.0087	0.00131	0.548	0.191	0.029	26.828	9.336	1.400	0.000	0.000	0.000	0.000	0.682	0.237	0.036	0.000
402A	51C Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.121	1.144	0.172	0.000	0.000	0.000	0.000	0.180	0.066	0.010	0.000
402A	54C Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.121	1.144	0.172	0.000	0.000	0.000	0.000	0.180	0.066	0.010	0.000
218	50C Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.121	1.144	0.172	0.000	0.000	0.000	0.000	0.180	0.066	0.010	0.000
218	46C Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.121	1.144	0.172	0.000	0.000	0.000	0.000	0.180	0.066	0.010	0.000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions				
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr	
<b>SOURCE 210, 213, 215A CONTROL COLLECTOR: JOHNSON MARCH A</b>					<b>D10</b>																	
<b>MILL CRUSHING</b>																						
210	#990 waste conveyor (old 55)	0.95	100	8760	0.0030	0.0011	0.00017	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000	
210	3 Bin	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000	
210	4 Feeder	0.95	60	8760	0.0030	0.0011	0.00017	0.039	0.014	0.002	0.749	0.275	0.041	0.000	0.000	0.000	0.000	0.043	0.016	0.002	0.000	
210	4 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	5 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	2 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	3 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	6 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	7 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	8 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.420	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000	
210	37 Screen	0.98	40	8760	0.0250	0.0087	0.00131	0.088	0.030	0.005	4.292	1.494	0.224	0.000	0.000	0.000	0.000	0.109	0.038	0.006	0.000	
210	11 Screen	0.98	40	8760	0.0250	0.0087	0.00131	0.088	0.030	0.005	4.292	1.494	0.224	0.000	0.000	0.000	0.000	0.109	0.038	0.006	0.000	
210	16 Screen	0.98	40	8760	0.0250	0.0087	0.00131	0.088	0.030	0.005	4.292	1.494	0.224	0.000	0.000	0.000	0.000	0.109	0.038	0.006	0.000	
210	41C Conveyor	0.95	100	8760	0.0030	0.0011	0.00017	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000	
210	8C Conveyor	0.95	100	8760	0.0030	0.0011	0.00017	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000	
210	31 Screen	0.98	30	8760	0.0250	0.0087	0.00131	0.066	0.023	0.003	3.219	1.120	0.168	0.000	0.000	0.000	0.000	0.082	0.028	0.004	0.000	
210	32 Screen	0.98	30	8760	0.0250	0.0087	0.00131	0.066	0.023	0.003	3.219	1.120	0.168	0.000	0.000	0.000	0.000	0.082	0.028	0.004	0.000	
210	33 Screen	0.98	30	8760	0.0250	0.0087	0.00131	0.066	0.023	0.003	3.219	1.120	0.168	0.000	0.000	0.000	0.000	0.082	0.028	0.004	0.000	
210	9 Elevator	0.99	60	8760	0.0030	0.0011	0.00017	0.008	0.003	0.000	0.781	0.286	0.043	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000	
210	#200 waste elevator (old #8)	0.99	60	8760	0.0030	0.0011	0.00017	0.008	0.003	0.000	0.781	0.286	0.043	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000	
215A	TCM Bins(1, 2, 4A, 4B, 5)	0.99	60	8760	0.0030	0.0011	0.00017	0.008	0.003	0.000	0.781	0.286	0.043	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000	
213	Gran Silos 2C, 4C and Tanks 2	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.0196	0.0072	0.00108	0.0000	

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>SOURCE 211, 403</b>																					
<b>CONTROL COLLECTOR: JOHNSON MARCH B D11</b>																					
211	2 Bin	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000
211	16 Spill Box	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000
211	14 Spill Box	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000
211	13 Feeder	0.95	60	8760	0.0030	0.0011	0.00017	0.039	0.014	0.002	0.749	0.275	0.043	0.000	0.000	0.000	0.000	0.043	0.016	0.002	0.000
211	19 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.429	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000
211	20 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.429	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000
211	21 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.429	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000
211	22 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.429	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000
211	23 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.429	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000
211	24 Screen	0.98	75	8760	0.0250	0.0087	0.00131	0.164	0.057	0.009	8.048	2.801	0.429	0.000	0.000	0.000	0.000	0.204	0.071	0.011	0.000
211	15 Spill box	0.99	75	8760	0.0250	0.0087	0.00131	0.082	0.029	0.004	8.130	2.829	0.429	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
211	25 Screen	0.98	60	8760	0.0250	0.0087	0.00131	0.131	0.046	0.007	6.439	2.241	0.343	0.000	0.000	0.000	0.000	0.164	0.057	0.009	0.000
211	26 Screen	0.98	60	8760	0.0250	0.0087	0.00131	0.131	0.046	0.007	6.439	2.241	0.343	0.000	0.000	0.000	0.000	0.164	0.057	0.009	0.000
211	27 Screen	0.98	60	8760	0.0250	0.0087	0.00131	0.131	0.046	0.007	6.439	2.241	0.343	0.000	0.000	0.000	0.000	0.164	0.057	0.009	0.000
211	18 Elevator	0.99	15	8760	0.0030	0.0011	0.00017	0.002	0.001	0.000	0.195	0.072	0.011	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
403	Fines Slide B	0.95	16	8760	0.0030	0.0011	0.00017	0.011	0.004	0.001	0.200	0.073	0.012	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000
403	Fines Slide J-Ms	0.95	16	8760	0.0030	0.0011	0.00017	0.011	0.004	0.001	0.200	0.073	0.012	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000
403	Fines Slide J-Ms	0.95	16	8760	0.0030	0.0011	0.00017	0.011	0.004	0.001	0.200	0.073	0.012	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000
<b>SOURCE 210, 211, 217</b>																					
<b>CONTROL COLLECTOR: TORIT DONALDSON</b>																					
<b>484 RFW12AW BH500</b>																					
210	57 Conveyor	0.95	100	8760	0.0030	0.0011	0.00017	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
210	22 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.00072	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.00108	0.00000
210	5 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.00072	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.00108	0.00000
210	4 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.00072	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.00108	0.00000
210	6 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.00072	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.00108	0.00000
210	7 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.00072	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.00108	0.00000
211	56 Conveyor	0.95	100	8760	0.0030	0.0011	0.00017	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.0040	0.00000
211	21 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.0011	0.00000
211	13 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.0011	0.00000
211	16 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.0011	0.00000
211	14 Elevator	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.0011	0.00000
211	15 Elevator	0.99	75	8760	0.0030	0.0011	0.00017	0.010	0.004	0.001	0.976	0.358	0.054	0.000	0.000	0.000	0.000	0.015	0.005	0.0008	0.00000
211	19 Conveyor	0.95	130	8760	0.0030	0.0011	0.00017	0.085	0.031	0.005	1.623	0.595	0.089	0.000	0.000	0.000	0.000	0.094	0.034	0.0051	0.00000
217	Conveyor 987	0.95	40	8760	0.0030	0.0011	0.00017	0.026	0.010	0.001	0.499	0.183	0.027	0.000	0.000	0.000	0.000	0.029	0.011	0.002	0.000



PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions							
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) tons/yr	(PM10) tons/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) tons/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr	PTE (PM2.5 Cond) ton/yr				
<b>SOURCE 210A &amp; 211B, 403</b>																									
<b>CONTROL COLLECTOR: DONALDSON 484RF12AW D12</b>																									
210A	1 Feed Box	?	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
210A	2 Feed Box	?	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
210A	3 Feed Box	?	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
210A	1 Roll Crusher	?	0.98	80	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5/PM10 ratio of 0.15	0.038	0.017	0.003	1.854	0.824	0.124	0.000	0.000	0.000	0.000	0.047	0.021	0.003	0.000
210A	2 Roll Crusher	?	0.98	80	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5/PM10 ratio of 0.15	0.038	0.017	0.003	1.854	0.824	0.124	0.000	0.000	0.000	0.000	0.047	0.021	0.003	0.000
210A	3 Roll Crusher	?	0.98	80	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5/PM10 ratio of 0.15	0.038	0.017	0.003	1.854	0.824	0.124	0.000	0.000	0.000	0.000	0.047	0.021	0.003	0.000
211B	8 Feed Box	?	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.00086	0.00000
211B	9 Feed Box	?	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.00086	0.00000
211B	10 Feed Box	?	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.00086	0.00000
211B	8 Roll Crusher	?	0.98	80	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5/PM10 ratio of 0.15	0.038	0.017	0.003	1.854	0.824	0.124	0.000	0.000	0.000	0.000	0.047	0.021	0.00314	0.00000
211B	9 Roll Crusher	?	0.98	80	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5/PM10 ratio of 0.15	0.038	0.017	0.003	1.854	0.824	0.124	0.000	0.000	0.000	0.000	0.047	0.021	0.00314	0.00000
211B	10 Roll Crusher	?	0.98	80	8760	0.0054	AP-42 Table 11.19.2-2 Tertiary Crushing	0.0024	AP-42 Table 11.19.2-2 Tertiary Crushing	0.00036	PM2.5/PM10 ratio of 0.15	0.038	0.017	0.003	1.854	0.824	0.124	0.000	0.000	0.000	0.000	0.047	0.021	0.00314	0.00000
403	Fines Screw H	?	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.007	0.002	0.000	0.125	0.046	0.007	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
<b>SOURCE 216, 403</b>																									
<b>CONTROL COLLECTOR: TORIT DAY "G" D09 D16</b>																									
216	945 Conveyor	?	0.95	150	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.099	0.036	0.005	1.971	0.723	0.108	0.000	0.000	0.000	0.000	0.108	0.040	0.006	0.000
216	195 Elevator	?	0.99	150	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.020	0.007	0.001	1.971	0.723	0.108	0.000	0.000	0.000	0.000	0.030	0.011	0.002	0.000
216	905 Screen	?	0.98	75	8760	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.164	0.057	0.009	8.213	2.858	0.429	0.000	0.000	0.000	0.000	0.205	0.071	0.011	0.000
216	910 Screen	?	0.98	75	8760	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.164	0.057	0.009	8.213	2.858	0.429	0.000	0.000	0.000	0.000	0.205	0.071	0.011	0.000
216	985 Conveyor	?	0.95	75	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.049	0.018	0.003	0.986	0.361	0.054	0.000	0.000	0.000	0.000	0.054	0.020	0.003	0.000
216	578 Hopper	?	0.99	100	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.013	0.005	0.001	0.482	0.482	0.072	0.000	0.000	0.000	0.000	0.016	0.007	0.001	0.000
216	365 Feeder	?	0.95	100	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.314	0.482	0.072	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
216	260 Rotary Oiler*	?	0.98	100	8760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.0000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.0000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000
216	915 Screen*	?	0.98	100	8760	0.0022	AP-42 Table 11.19.2-2 Screening (controlled)	0.00074	AP-42 Table 11.19.2-2 Screening (controlled)	0.00005	AP-42 Table 11.19.2-2 Screening (controlled)	0.019	0.006	0.000	0.964	0.324	0.022	0.000	0.000	0.000	0.000	0.024	0.008	0.001	0.000
216	Screw* 182	?	0.95	5	8760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
216	950 Conveyor*	?	0.95	100	8760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
216	Fines Conv. Slide	?	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.007	0.002	0.000	0.131	0.048	0.007	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
216	336 Elevator	?	0.99	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.001	0.000	0.000	0.131	0.048	0.007	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000
216	5B Conveyor	?	0.95	150	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.099	0.036	0.005	1.971	0.723	0.108	0.000	0.000	0.000	0.000	0.108	0.040	0.006	0.000
403	Fines Slide C-D	?	0.95	16	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	0.210	0.077	0.012	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000
<b>SOURCE 216</b>																									
<b>CONTROL COLLECTOR: CARTERDAY 72RJ60 "A" F04</b>																									
216	49C Conveyor*	?	0.95	100	8760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
216	Silo 1 Natural*	?	0.99	100	8760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
<b>SOURCE 403</b>																									
<b>CONTROL COLLECTOR: CARTERDAY "C" 72RJ37 H03</b>																									
403	19 Conveyor	?	0.95	130	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.085	0.031	0.005	1.623	0.595	0.089	0.000	0.000	0.000	0.000	0.094	0.034	0.005	0.000
403	58 Conveyor	?	0.95	130	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.085	0.031	0.005	1.623	0.595	0.089	0.000	0.000	0.000	0.000	0.094	0.034	0.005	0.000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>SOURCE 403</b>																					
<b>CONTROL COLLECTOR: CARTERDAY "D" 72RJ48 H02</b>																					
403	Fines Silos, 1 and 2 S404	0.99	130	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.017	0.006	0.0009	1.691	0.620	0.093	0.000	0.000	0.000	0.000	0.026	0.009	0.0014	0.000
<b>Total Intermediate Crushing</b>																					
<b>COLORING PLANT</b>																					
<b>SOURCE 317, 401B, 302</b>																					
<b>CONTROL COLLECTOR: DONALDSON 484RF #440 C104</b>																					
302	961B Conveyor	0.95	150	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.099	0.036	0.005	1.872	0.687	0.103	0.000	0.000	0.000	0.000	0.108	0.040	0.0059	0.000
302	7B Conveyor	0.95	150	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.099	0.036	0.005	1.872	0.687	0.103	0.000	0.000	0.000	0.000	0.108	0.040	0.0059	0.000
302	9B Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.0032	0.000
302	12B Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.0032	0.000
302	13B Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.0032	0.000
302	14B Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.0032	0.000
302	11B Elevator	0.99	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.0009	0.000
302	Granules Silos Green and Grey	0.99	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.0011	0.000
401B	COLLECTOR FINES elevator	0.99	40	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.005	0.002	0.000	0.520	0.191	0.029	0.000	0.000	0.000	0.000	0.008	0.0029	0.00043	0.000
317	#4 Fines Tank	0.99	40	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.005	0.002	0.000	0.520	0.191	0.029	0.000	0.000	0.000	0.000	0.008	0.003	0.000	0.000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions						
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr			
<b>SOURCE 302,303,304,317,401B</b>																								
<b>CONTROL COLLECTOR: DONALDSON 484RF #445 C105</b>																								
302	7B Elevator	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
302	7B Screen	0.98	80	8760	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.175	0.061	0.009	8.585	2.988	0.448	0.000	0.000	0.000	0.000	0.218	0.076	0.011	0.000
302	55K Bin	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
302	55K Conveyor	0.95	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
302	6B Screen	0.98	80	8760	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.175	0.061	0.009	8.585	2.988	0.448	0.000	0.000	0.000	0.000	0.218	0.076	0.011	0.000
302	56K Bin	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
302	5530 Feeder	0.95	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
302	50K Conveyor OUT	0.95	100	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
302	16B Conveyor OUT	0.95	100	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
302	8B ext. Conveyor OUT	0.95	100	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
303	1D Preheater	0.995	80	8760	2.680	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	4.695	2.558	1.454	934.4	509.0	289.4	0.035	0.035	0.035	0.108	9.403	5.138	2.936	0.108
303	1D Elevator	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
303	2D Elevator	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
303	1D Hopper	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
303	3D Hopper	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
304	2D Preheater	0.995	80	8760	2.680	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	4.695	2.558	1.454	934.377	509.026	289.378	0.035	0.035	0.035	0.108	9.367	5.103	2.901	0.108
401B	46 Conveyor G-11	0.95	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055					0.058	0.021	0.003	0.000
317	35K Screw PANG 6 OUT	0.95	50	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.033	0.012	0.002	0.624	0.229	0.034	0.000	0.000	0.000	0.000	0.036	0.013	0.002	0.000
317	34K Screw PANG 5 OUT	0.95	50	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.033	0.012	0.002	0.624	0.229	0.034	0.000	0.000	0.000	0.000	0.036	0.013	0.002	0.000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions						
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr			
<b>SOURCE 302.317.401B</b>																								
<b>CONTROL COLLECTOR: CARTERDAY E 232RF8 H04</b>																								
<b>TENNIS COURT MATERIAL PROCESS</b>																								
317	Binder Storage	0.99	30	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00394	0.00145	0.00022	0.390	0.143	0.021	0.000	0.000	0.000	0.000	0.006	0.002	0.000	0.000
317	TCM Bin 2 and 3	0.99	150	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.01971	0.00723	0.00108	1.951	0.715	0.107	0.000	0.000	0.000	0.000	0.029	0.011	0.002	0.000
317	1 Bin Binder	0.99	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00131	0.00048	0.00007	0.130	0.048	0.007	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000
317	1 Screw Binder	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00657	0.00241	0.00036	0.125	0.046	0.007	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
317	2 Screw Binder	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00657	0.00241	0.00036	0.125	0.046	0.007	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
317	4B Screw Binder	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00657	0.00241	0.00036	0.125	0.046	0.007	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
317	Recycle feeder	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00657	0.00241	0.00036	0.125	0.046	0.007	0.000	0.000	0.00000	0.00000	0.007	0.003	0.00040	0.00000
317	Recycle feeder	0.95	10	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00657	0.00241	0.00036	0.125	0.046	0.007	0.000	0.000	0.00000	0.00000	0.007	0.003	0.00040	0.00000
317	2T Binder Elevator	0.99	45	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00591	0.00217	0.00033	0.585	0.215	0.032	0.000	0.000	0.00000	0.00000	0.009	0.003	0.00049	0.00000
317	TCM Hopper	0.99	45	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00591	0.00217	0.00033	0.585	0.215	0.032	0.000	0.000	0.00000	0.00000	0.009	0.003	0.00049	0.00000
317	1T Mixer	0.95	45	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.02957	0.01084	0.00163	0.562	0.206	0.031	0.000	0.000	0.00000	0.00000	0.032	0.012	0.00178	0.00000
317	44K Screw	0.95	50	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.03285	0.01205	0.00181	0.624	0.229	0.034	0.000	0.000	0.00000	0.00000	0.036	0.013	0.00198	0.00000
317	43K Screw 30'	0.95	50	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.03285	0.01205	0.00181	0.624	0.229	0.034	0.000	0.000	0.00000	0.00000	0.036	0.013	0.00198	0.00000
317	C-D Screw 40'	0.95	50	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.03285	0.01205	0.00181	0.624	0.229	0.034	0.000	0.000	0.00000	0.00000	0.036	0.013	0.00198	0.00000
317	Fines Loading	0.95	50	8760	0.0003	used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.0001	used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015	PM2.5/PM10 ratio of 0.15	0.00329	0.00110	0.00016	0.062	0.021	0.003	0.000	0.000	0.00000	0.00000	0.004	0.001	0.00018	0.00000
317	Fines air slide	0.95	50	8760	0.0003	used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.0001	used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015	PM2.5/PM10 ratio of 0.15	0.00329	0.00110	0.00016	0.062	0.021	0.003	0.000	0.000	0.00000	0.00000	0.004	0.001	0.00018	0.00000
317	Fines Tank	0.99	100	8760	0.0003	used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.0001	used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015	PM2.5/PM10 ratio of 0.15	0.00131	0.00044	0.00007	0.130	0.043	0.007	0.000	0.000	0.00000	0.00000	0.002	0.001	0.00010	0.00000
317	3B Elevator G-11	0.99	45	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.00591	0.00217	0.00033	0.585	0.215	0.032	0.000	0.000	0.00000	0.00000	0.009	0.003	0.00049	0.00000
302	12B ELEVATOR	OUT	100	0	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
302	18K Elevator	OUT	100	0	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
401B	3T Conveyor G-11	0.95	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.0032	0.00000
401B	Hopper G-11	0.99	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.0009	0.00000
401B	Feeder G-11	0.95	80	8760	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.0032	0.00000
401B	Oiler G-11*	0.95	80	8760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000015	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.002	0.001	0.000	0.047	0.015	0.004	0.000	0.000	0.000	0.000	0.003	0.001	0.0002	0.00000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr
<b>SOURCE 303, 305A</b>																					
<b>CONTROL COLLECTOR: DONALDSON #3 BAGHOUSE G01</b>																					
303	2D Hopper	0.99	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000
305A	1 Feeder	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	2 Feeder	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	3 Feeder	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	1 Paint Mixer	0.95	57	8760	0.0005 PM-PM10-PM2.5 Factor used is about 10x the PM10 factor for dust emissions from well suppression controlled conveyors listed in AP42 Table 11.19.2-2	0.0005 PM-PM10-PM2.5 Factor used is about 10x the PM10 factor for dust emissions from well suppression controlled conveyors listed in AP42 Table 11.19.2-2	0.0005 PM-PM10-PM2.5	0.006	0.006	0.006	0.119	0.119	0.119	0.000	0.000	0.000	0.000	0.007	0.007	0.007	0.000
305A	2 Paint Mixer	0.95	57	8760	0.0005 PM-PM10-PM2.5 Factor used is about 10x the PM10 factor for dust emissions from well suppression controlled conveyors listed in AP42 Table 11.19.2-2	0.0005 PM-PM10-PM2.5 Factor used is about 10x the PM10 factor for dust emissions from well suppression controlled conveyors listed in AP42 Table 11.19.2-2	0.0005 PM-PM10-PM2.5	0.006	0.006	0.006	0.119	0.119	0.119	0.000	0.000	0.000	0.000	0.007	0.007	0.007	0.000
305A	3 Paint Mixer	0.95	57	8760	0.0005 PM-PM10-PM2.5 Factor used is about 10x the PM10 factor for dust emissions from well suppression controlled conveyors listed in AP42 Table 11.19.2-2	0.0005 PM-PM10-PM2.5 Factor used is about 10x the PM10 factor for dust emissions from well suppression controlled conveyors listed in AP42 Table 11.19.2-2	0.0005 PM-PM10-PM2.5	0.006	0.006	0.006	0.119	0.119	0.119	0.000	0.000	0.000	0.000	0.007	0.007	0.007	0.000
305A	1 Aerator	0.98	57	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	13.382	7.290	4.144	655.7	357.2	203.1	0.202	0.202	0.202	0.605	16.661	9.077	5.161	0.605
305A	2 Aerator	0.98	57	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	13.382	7.290	4.144	655.7	357.2	203.1								
305A	3 Aerator	0.98	57	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	13.382	7.290	4.144	655.7	357.2	203.1								
305A	4D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	1D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	2D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	3D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	Fuel Burning System Aux Burner													0.134	0.134	0.134	0.404	0.001	0.001	0.006	0.404
305A	1 Paint	0.95	0	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.020	0.020	0.061	0.000	0.000	0.000	0.061
																		0.000	0.000	0.000	0.000
<b>SOURCE 305A,309,311A</b>																					
<b>CONTROL COLLECTOR: DONALDSON #2 BAGHOUSE G03</b>																					
305A	52 Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
311A	1D Feeder	0.95	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
311A	Pan Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
311A	42D Conveyor	0.95	65	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.043	0.016	0.002	0.811	0.298	0.045	0.000	0.000	0.000	0.000	0.047	0.017	0.003	0.000
311A	12 Elevator	0.99	65	8760	0.0010 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.009	0.003	0.000	0.846	0.310	0.047	0.000	0.000	0.000	0.000	0.013	0.005	0.007	0.000
311A	19 Elevator	0.99	65	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.009	0.003	0.000	0.846	0.310	0.047	0.000	0.000	0.000	0.000	0.013	0.005	0.007	0.000
311A	20 Elevator	0.99	65	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.009	0.003	0.000	0.846	0.310	0.047	0.000	0.000	0.000	0.000	0.013	0.005	0.007	0.000
311A	1D Oiler Screen	0.98	100	8760	0.0250 AP-42 Table 11.19.2-2 Screening	0.0087 AP-42 Table 11.19.2-2 Screening	0.00131 PM2.5/PM10 ratio of 0.15	0.219	0.076	0.011	10.731	3.734	0.560	0.000	0.000	0.000	0.000	0.273	0.095	0.014	0.000
311A	24K Conveyor*	0.95	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
311A	1D Oiler*	0.95	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
311A	1D Oiler Bin	0.99	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000
311A	3D Transfer Bin	0.99	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.009	0.000
311A	5 Klin	0.995	43	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	2.524	1.375	0.782	502.2	273.6	155.5	0.099	0.099	0.099	0.296	5.035	2.743	1.560	0.296
311A	1D Transfer Bin	0.99	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.009	0.000
305A	6D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	9D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	5D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	7D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
305A	8D Conveyor	0.95	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.053	0.019	0.003	0.999	0.366	0.055	0.000	0.000	0.000	0.000	0.058	0.021	0.003	0.000
309	3 Klin	0.995	43	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	2.524	1.375	0.782	502.2	273.6	155.5	0.099	0.099	0.099	0.296	5.035	2.743	1.560	0.296

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions					
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) tons/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr		
<b>SOURCE 308A</b>																							
<b>CONTROL COLLECTOR: DONALDSON #1 BAGHOUSE G05</b>																							
308A	10D Conveyor	0.95	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.314	0.482	0.072	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000		
308A	8 Elevator	0.99	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.013	0.005	0.001	1.314	0.482	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000		
308A	17 Elevator	0.99	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.013	0.005	0.001	1.314	0.482	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000		
308A	Waste Elevator	0.99	0	8760				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
308A	9K Conveyor	0.95	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.314	0.482	0.072	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000		
308A	2D Oiler*	0.95	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000		
308A	2D Transfer Bin	0.99	80	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.011	0.004	0.001	1.041	0.382	0.057	0.000	0.000	0.000	0.000	0.016	0.006	0.001	0.000		
308A	2D Oiler Bin	0.99	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.020	0.007	0.001	0.000		
308A	2D Oil Screen	0.98	100	8760	0.0250 AP-42 Table 11.19.2-2 Screening	0.0087 AP-42 Table 11.19.2-2 Screening	0.00131 PM2.5/PM10 ratio of 0.15	0.219	0.076	0.011	10.731	3.734	0.560	0.000	0.000	0.000	0.000	0.273	0.095	0.014	0.000		
308A	2D Feeder	0.95	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.248	0.458	0.069	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000		
308A	2 Kiln	0.995	43	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	2.524	1.375	0.782	502.2	273.6	155.5					5.035	2.743	1.559	0.000		
308A	4 Kiln	0.995	43	8760	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	2.524	1.375	0.782	502.2	273.6	155.5					5.035	2.743	1.559	0.000		
308A	Kiln Gas Burning	0.995																0.198	0.198	0.198	0.591		
				S319														0.198	0.198	0.198	0.591		
<b>SOURCE 308A, 309,311A, 302</b>																							
<b>CONTROL COLLECTOR: FISHER KLOSTERMAN #4 SCRUBBER G02</b>																							
309	6 Cooler	0.98	80	8760	0.0005 PM-PM10-PM2.5	0.0005 Factor used is about 10x the PM10 factor for dust emissions from wet suppression controlled	0.0005 PM-PM10-PM2.5	0.004	0.004	0.00350	0.172	0.172	0.172	0.000	0.000	0.00000	0.00000	0.004	0.004	0.004	0.000		
311A	5 Cooler	0.98	80	8760	0.0005 PM-PM10-PM2.5	0.0005 Factor used is about 10x the PM10 factor for dust emissions from wet suppression controlled	0.0005 PM-PM10-PM2.5	0.004	0.004	0.00350	0.172	0.172	0.172	0.000	0.000	0.00000	0.00000	0.004	0.004	0.004	0.000		
308A	1 Cooler	0.98	80	8760	0.0005 PM-PM10-PM2.5	0.0005 Factor used is about 10x the PM10 factor for dust emissions from wet suppression controlled	0.0005 PM-PM10-PM2.5	0.004	0.004	0.00350	0.172	0.172	0.172	0.000	0.000	0.00000	0.00000	0.004	0.004	0.004	0.000		
302	40 Screen	0.98	80	8760	0.0250 AP-42 Table 11.19.2-2 Screening	0.0087 AP-42 Table 11.19.2-2 Screening	0.00131 PM2.5/PM10 ratio of 0.15	0.175	0.061	0.0091	8.585	2.988	0.448	0.000	0.000	0.00000	0.00000	0.218	0.076	0.0114	0.000		

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions				
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) tons/yr	(PM10) tons/yr	(PM2.5) tons/yr	(PM2.5 Cond) tons/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	PTE (PM2.5 Cond) ton/yr	
<b>* OILED GRANULES HANDLED BY THE FOLLOWING EQUIPMENT:</b>																						
<b>GRANULE SHIPPING</b>																						
317	waste bin conv.*	0.95	30	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.017	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
317	Drag Conv.*	0.95	38	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.022	0.007	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
317	Drag conv. Inclined*	0.95	38	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.022	0.007	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
213B	3D Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	47K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	15K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	20K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	4K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	16K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	25K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	32K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	33K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	Recycle Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	Recycle Conveyor*	0.95	20	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.012	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	9K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	6K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	7K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	14K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	26K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	12K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	36K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	Finished Silos*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	17K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	18K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	Granule Bins for Bag*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	Recycle Bins	0.99	100	8760	0.0030	0.0011	0.00017	0.013	0.005	0.001	1.301	0.477	0.072	0.000	0.000	0.000	0.000	0.000	0.020	0.007	0.011	0.000
213B	14K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	Granules Bagger*	0.95	20	8760	0.0003	0.0001	0.000015	0.001	0.000	0.000	0.025	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.00007	0.000
213B	13K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	53K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	7K Screen*	0.98	100	8760	0.0022	0.00074	0.00005	0.019	0.006	0.000	0.944	0.318	0.021	0.000	0.000	0.000	0.000	0.000	0.024	0.008	0.005	0.000
213B	45K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	7K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000
213B	6K Screen*	0.98	100	8760	0.0022	0.00074	0.00005	0.019	0.006	0.000	0.944	0.318	0.021	0.000	0.000	0.000	0.000	0.000	0.024	0.008	0.005	0.000
213B	11K Conveyor*	0.98	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.060	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.001	0.000
213B	19K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	5K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	Railroad Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	49K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	59K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	22K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	16K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000
213B	27K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.003	0.000

PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions				
					E.F. (TSP)	E.F. (PM-10)	E.F. (PM2.5)	(TSP)	(PM10)	(PM2.5)	PTE (TSP)	PTE (PM10)	PTE (PM2.5)	(TSP)	(PM10)	(PM2.5)	(PM2.5 Filtr)	(PM2.5 Cond)	PTE (TSP)	PTE (PM10)	PTE (PM2.5 Filtr)	PTE (PM2.5 Cond)
					lbs/ton	lbs/ton	lbs/ton	tons/year	tons/year	tons/year	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
213B	28K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	30K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	31K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	15K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	22K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	38K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	37K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	52K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	86K Elevator*	0.99	100	8760	0.00014	0.000046	0.000013	0.001	0.000	0.000	0.061	0.020	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	92K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	91K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	90K Conveyor*	0.95	100	8760	0.00014	0.000046	0.000013	0.003	0.001	0.000	0.058	0.019	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	36K Screen*	0.95	100	8760	0.0022	0.00074	0.00005	0.048	0.016	0.001	0.915	0.308	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
213B	Granules Loading*	0.95	100	8760	0.0003	0.00014	0.00002	0.007	0.002	0.000	0.125	0.042	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
<b>Total Coloring Plant</b>																						
<b>HEADLAP PLANT</b>																						
<b>Crushing/screening</b>																						
<b>SOURCE 515</b>																						
<b>CONTROL COLLECTOR: DC 101</b>					<b>C051A</b>																	
515	C102 conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.285	1.205	0.181	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
515	dryer	0.995	200	8760	2.680	1.460	0.830	11.738	6.395	3.635	2347.680	1278.960	727.080	0.328	0.328	0.328	0.963	23.478	12.791	7.272		
515	BE101 elevator	0.99	350	8760	0.0030	0.0011	0.00017	0.046	0.017	0.003	4.599	1.686	0.253	0.000	0.000	0.000	0.000	0.069	0.025	0.004		
515	C103 Conveyor	0.95	250	8760	0.0030	0.0011	0.00017	0.164	0.060	0.009	3.285	1.205	0.181	0.000	0.000	0.000	0.000	0.181	0.066	0.010		
<b>SOURCE 520</b>					<b>C051B</b>																	
<b>CONTROL COLLECTOR: DC 102</b>																						
520	SCR101 TD screen	0.98	340	8760	0.0250	0.0087	0.00131	0.745	0.259	0.039	37.230	12.956	1.943	0.000	0.000	0.000	0.000	0.931	0.324	0.049		
520	CR101 crusher	0.98	250	8760	0.0054	0.0024	0.00036	0.118	0.053	0.008	5.913	2.628	0.394	0.000	0.000	0.000	0.000	0.148	0.066	0.010		
520	B101 bin	0.99	90	8760	0.0030	0.0011	0.00017	0.012	0.004	0.001	1.183	0.434	0.065	0.000	0.000	0.000	0.000	0.018	0.007	0.001		
520	BF101 feeder conv.	0.95	90	8760	0.0030	0.0011	0.00017	0.059	0.022	0.003	1.123	0.412	0.062	0.000	0.000	0.000	0.000	0.065	0.024	0.004		
520	BE102 elevator	0.99	330	8760	0.0030	0.0011	0.00017	0.043	0.016	0.002	4.293	1.574	0.236	0.000	0.000	0.000	0.000	0.065	0.024	0.004		
520	B102 bin	0.99	250	8760	0.0030	0.0011	0.00017	0.033	0.012	0.002	3.252	1.192	0.179	0.000	0.000	0.000	0.000	0.049	0.018	0.003		
520	BF102	0.95	125	8760	0.0030	0.0011	0.00017	0.082	0.030	0.005	1.560	0.572	0.086	0.000	0.000	0.000	0.000	0.090	0.033	0.005		
520	BF103	0.95	125	8760	0.0030	0.0011	0.00017	0.082	0.030	0.005	1.560	0.572	0.086	0.000	0.000	0.000	0.000	0.090	0.033	0.005		
520	CR102 crusher	0.98	250	8760	0.0054	0.0024	0.00036	0.118	0.053	0.008	5.795	2.575	0.386	0.000	0.000	0.000	0.000	0.147	0.065	0.010		
520	CR103 crusher	0.98	250	8760	0.0054	0.0024	0.00036	0.118	0.053	0.008	5.795	2.575	0.386	0.000	0.000	0.000	0.000	0.147	0.065	0.010		
520	C104 conveyor	0.98	240	8760	0.0030	0.0011	0.00017	0.063	0.023	0.003	3.091	1.133	0.170	0.000	0.000	0.000	0.000	0.079	0.029	0.004		





PTE Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
420	410 screen* * OILED PRODUCT	0.98	80	8760	0.0022 AP-42 Table 11.19.2-2 Screening (controlled)	0.00074 AP-42 Table 11.19.2-2 Screening (controlled)	0.00005 AP-42 Table 11.19.2-2 Screening (controlled)	0.015	0.005	0.000	0.755	0.254	0.017	0.000	0.000	0.000	0.000	0.019	0.006	0.000	0.000
<b>SHIPPING TANKS</b>																					
420	146 silo*	0.99	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.061	0.020	0.005	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
420	147 silo*	0.99	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.061	0.020	0.005	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
420	148 silo*	0.99	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.061	0.020	0.005	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
420	921 conveyor*	0.95	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.003	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
420	922 conveyor	0.95	100	8760	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.00017 PM2.5/PM10 ratio of 0.15	0.066	0.024	0.004	1.248	0.458	0.007	0.000	0.000	0.000	0.000	0.072	0.026	0.004	0.000
420	923 conveyor*	0.95	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.003	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
420	924 conveyor*	0.95	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.003	0.001	0.000	0.058	0.019	0.003	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000
420	450 elevator*	0.99	80	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.049	0.016	0.004	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
420	460 elevator*	0.99	100	8760	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.061	0.020	0.005	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
<b>Total Undersize Material Processing Plant</b>																					
								0.956	0.361	0.071	33.816	12.929	2.685	0.000	0.000	0.000	0.000	1.125	0.426	0.085	0.000
								0.956	0.361	0.071	33.816	12.929	2.685	0.000	0.000	0.000	0.000	1.125	0.426	0.085	0.000
<b>Aggregate Plant Crushing/Conveying CONTROLLED WITH WATER SPRAYS</b>																					
C120	METSO-Primary																				
C300	Superior-Patriot Secondary																				
C300	Superior-Patriot Tertiary																				
C1	Conveyor																				
C2	Conveyor																				
C3	Conveyor																				
C4	Conveyor																				
C5	Radial Stacker	ALL	FUGITIVE	EMMISSIONS																	
C6	Conveyor																				
C7	Conveyor																				
C8	Conveyor																				
C9	Conveyor																				
C10A	Conveyor																				
C10B	Conveyor																				
C11	Conveyor																				
C12	Conveyor																				
C13	Conveyor																				
C14	Conveyor																				
C15	Radial Stacker																				
C16	Radial Stacker																				
C17	Radial Stacker																				
C18	Radial Stacker																				
C19	Conveyor																				
C20	Conveyor																				
C21	Conveyor																				
16	Emergency Generator			500									0.116	0.116	0.116	0.131					
<b>Total Facility Point Source PM</b>								110.674	56.400	28.824	12563.646	6688.757	3673.004	1.711	1.711	1.711	4.917	TSP 140.412	PM10 71.931	PM2.5 Filtr 37.109	PM2.5 Cond 4.786

NOTE: an asterisk, \*\*\* following a source name denotes that the product has been oiled prior to being handled by the specified equipment.

Control Efficiency	0.995
PM2.5/PM10 Ratio	0.15

Conveyors	0.95
Silos/Bins	0.99
Elevators	0.99
Screens	0.98
Crushers	0.98

stack - non-fuel	23,110	8,904	1,658
stack - fuel	6,627	6,627	6,627
stack - total	29,737	15,531	8,285

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	S.G.I. E.F. (TSP) lbs/ton	Diff?	S.G.I>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	S.G.I. E.F. (PM-10) lbs/ton	Diff?	S.G.I>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	S.G.I. E.F. (PM2.5) lbs/ton	Diff?	S.G.I>DEP	Comment if Diff.
<b>QUARRY AND PRIMARY CRUSHING</b>																
	All Fugitive Emissions															
	Sources: 201, 200B, 199, 202															
	CONTROLLED WITH WATER															
	All Fugitive Emissions															
	Total Primary															
<b>INTERMEDIATE CRUSHING</b>																
	<b>SOURCE 510</b>															
	CONTROL COLLECTOR: DO															
510	910 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	977 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	8 x 24 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	987 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	199 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00001	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	979 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	5 1/2 Cone Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
	<b>SOURCE 208, 209</b>															
	CONTROL COLLECTORS: TC															
209	Rock Silos, 1C and 3C	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
	<b>SOURCE 015</b>															
	CONTROL COLLECTORS: A															
015	990 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
015	Dryer #400	2.68	2.68000				1.46	1.46000				0.83	0.83000			
015	991 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 218, 208</b>																
<b>CONTROL COLLECTOR: SIN</b>																
218	198 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	138 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216, 218</b>																
<b>CONTROL COLLECTOR: CAI</b>																
218	136 Screen (200)	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 300 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 310 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 320 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	Feed Bin for 310/320	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	300 VS/4G VSI Crusher (340)	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	transfer box 310/320	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
216	3C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
216	9C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216, 218</b>																
<b>CONTROL COLLECTOR: DO</b>																
218	48° gyradisc 310	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	957 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	958 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	956 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 300 crusher alt	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
216	17C Conveyor TP	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 218, 402</b>																
<b>CONTROL COLLECTOR: CAI</b>																
402A	Hopper for 300	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	52C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	REMCO 300 VS/4G	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	53C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	20 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	GPS Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	51C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
402A	54C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	50C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
218	46C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5:PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 210, 213, 215A</b>																
<b>CONTROL COLLECTOR: JOI</b>																
<b>MILL CRUSHING</b>																
210	#980 waste conveyor (old 55)	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	3 Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	4 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	4 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	5 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	2 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	3 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	6 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	7 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	8 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	37 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	11 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	16 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	41C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	8C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	31 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	32 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	33 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	9 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	#200 waste elevator (old #8)	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
215A	TCM Bins(1, 2, 4A, 4B, 5)	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
213	Gran Silos 2C, 4C and Tanks 2	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff? SGI>DEP	Comment if Diff.
<b>SOURCE 211, 403</b>													
<b>CONTROL COLLECTOR: JO</b>													
211	2 Bin	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	16 Spill Box	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	14 Spill Box	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	13 Feeder	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	19 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	20 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	21 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	22 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	23 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	24 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	15 Spill box	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	25 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	26 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	27 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	18 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide B	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide J-Ms	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide J-Ms	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 210, 211, 217</b>													
<b>CONTROL COLLECTOR: TOI</b>													
<b>484 RFW12AW BH500</b>													
210	57 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
210	22 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
210	5 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
210	4 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
210	6 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
210	7 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	56 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	21 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	13 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	16 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	14 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	15 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
211	19 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)
217	Conveyor 987	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5:PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM10) lbs/ton	SGI E.F. (PM10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 210A &amp; 211B, 403</b>																
<b>CONTROL COLLECTOR: DO</b>																
210A	1 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	2 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	3 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	1 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	2 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	3 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	8 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	9 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	10 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	8 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	9 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	10 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Screw H	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216, 403</b>																
<b>CONTROL COLLECTOR: TO</b>																
216	945 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	195 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	905 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	910 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	985 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	578 Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	365 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	260 Rotary Oiler*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
216	915 Screen*	0.00220	0.02500	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00074	0.00870	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00087	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
216	Screw* 182	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
216	950 Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
216	Fines Conv. Slide	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	336 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	5B Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide C-D	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216</b>																
<b>CONTROL COLLECTOR: CA</b>																
216	49C Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
216	Silo 1 Natural*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
<b>SOURCE 403</b>																
<b>CONTROL COLLECTOR: CA</b>																
403	19 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	5B Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	S.G.I. E.F. (TSP) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	S.G.I. E.F. (PM-10) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	S.G.I. E.F. (PM2.5) lbs/ton	Diff? SGI>DEP	Comment if Diff.	
<b>SOURCE 403</b>														
<b>CONTROL COLLECTOR: CA</b>														
403	Fines Silos, 1 and 2	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
<b>Total Intermediate Crushing</b>														
<b>COLORING PLANT</b>														
<b>SOURCE 317, 401B, 302</b>														
<b>CONTROL COLLECTOR: DO</b>														
302	961B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	7B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	9B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	12B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	13B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	14B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	11B Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
302	Granules Silos Green and Grey	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
401B	COLLECTOR FINES elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
317	#4 Fines Tank	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5/PM10 ratio of 0.15 (SGI used 0.1)	
											0.00000			



PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 302,303,304,317,40</b>																
<b>CONTROL COLLECTOR: DO</b>																
302	7B Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	7B Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	55K Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	55K Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	6B Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	56K Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	5930 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	50K Conveyor OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	16B Conveyor OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	8B ext. Conveyor OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	1D Preheater	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
303	1D Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	2D Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	1D Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	3D Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
304	2D Preheater	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
401B	46 Conveyor G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	35K Screw PANG 6 OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	34K Screw PANG 5 OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 302,317,401B</b>																
<b>CONTROL COLLECTOR: CA</b>																
<b>TENNIS COURT MATERIAL PROCESS</b>																
317	Binder Storage	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	TCM Bin 2 and 3	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	1 Bin Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	1 Screw Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	2 Screw Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	4B Screw Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	Recycle feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	Recycle feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	2T Binder Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	TCM Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	1T Mixer	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	44K Screw	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	43K Screw 30'	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	C-D Screw 40'	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
317	Fines Loading	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		
317	Fines air slide	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		
317	Fines Tank	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		
317	3B Elevator G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
302	12B ELEVATOR	OUT	0.00300	0.00300			0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
302	18K Elevator	OUT	0.00300	0.00300			0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
401B	3T Conveyor G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
401B	Hopper G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
401B	Feeder G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.18 (SGI used 0.1)
401B	Oiler G-11*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM=PM10*PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM=PM10*PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM=PM10*PM2.5

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 303, 305A</b>																
<b>CONTROL COLLECTOR: DC</b>																
303	2D Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	1 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	2 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	3 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	1 Paint Mixer	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10/PM10+PM2.5, SGI used PM2.5/PM10 ratio of 0.1
305A	2 Paint Mixer	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10/PM10+PM2.5, SGI used PM2.5/PM10 ratio of 0.1
305A	3 Paint Mixer	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10/PM10+PM2.5, SGI used PM2.5/PM10 ratio of 0.1
305A	1 Aerator	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
305A	2 Aerator	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
305A	3 Aerator	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
305A	4D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	1D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	2D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	3D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	Fuel Burning System												0.00000			
305A	Aux Burner												0.00000			
305A	1 Paint	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM10/PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM10/PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM10/PM2.5
<b>SOURCE 305A,309,311A</b>																
<b>CONTROL COLLECTOR: DC</b>																
305A	52 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	1D Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	Pan Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	42D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	12 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	19 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	20 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	1D Oiler Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	24K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2.2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2.2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2.2 controlled (*); SGI used uncontrolled
311A	1D Oiler*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM10/PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM10/PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM10/PM2.5
311A	1D Oiler Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	3D Transfer Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
311A	5 Kiln	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
311A	1D Transfer Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	6D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	9D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	5D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	7D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
305A	8D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
309	3 Kiln	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 308A</b>																
<b>CONTROL COLLECTOR: DO</b>																
308A	10D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	8 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	17 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	Waste Elevator															
308A	9K Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Oiler*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.3.2 Conveyor Transfer Point (continued); SGI used older PM10 factor, and assumed PM10-PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.3.2 Conveyor Transfer Point (continued); SGI used older PM10 factor, and assumed PM10-PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.3.2 Conveyor Transfer Point (continued); SGI used older PM10 factor, and assumed PM10-PM2.5
308A	2D Transfer Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Oiler Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Oil Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2 Kiln	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
308A	4 Kiln	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
308A	Kiln Gas Burning															
<b>SOURCE 308A, 309, 311A, 302</b>																
<b>CONTROL COLLECTOR: FIE</b>																
309	6 Cooler	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10-PM2.5; SGI used PM2.5 PM10 ratio of 0.1
311A	5 Cooler	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10-PM2.5; SGI used PM2.5 PM10 ratio of 0.1
308A	1 Cooler	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10-PM2.5; SGI used PM2.5 PM10 ratio of 0.1
302	40 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)



PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
213B	28K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	30K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	31K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	15K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	22K Elevator*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	38K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	37K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	52K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	86K Elevator*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	92K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	91K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	90K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	36K Screen*	0.00220	0.02500	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00074	0.00870	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled	0.00005	0.00087	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*) SGI used uncontrolled
213B	Granules Loading*	0.00030	0.00030				0.00010	0.00010				0.00002	0.00001	diff		
<b>Total Coloring Plant</b>																
<b>HEADLAP PLANT</b>																
<b>Crushing/screening</b>																
<b>SOURCE 515</b>																
<b>CONTROL COLLECTOR: DC</b>																
C051A																
515	C102 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
515	dryer	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
515	BE101 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
515	C103 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 520</b>																
<b>CONTROL COLLECTOR: DC</b>																
C051B																
520	SCR101 TD screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	CR101 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	B101 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BF101 feeder conv.	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BE102 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	B102 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BF102	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BF103	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	CR102 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	CR103 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	C104 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 525</b>																
<b>CONTROL COLLECTOR: DC</b>			C051C													
525	C105 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	SCR102 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	SCR103 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	SCR104 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	SCR105 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	C106 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	SCR 106 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	SCR 107 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	B103 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	B104 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	C108 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	BE103 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	B105 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	B106 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	C109 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	BE105	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	BE106	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	BE104 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
<b>OILING SYSTEM</b>																
525	surge bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
525	rotary oiler*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM<sub>10</sub>-PM<sub>2.5</sub>	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used older PM10 factor, and assumed PM<sub>10</sub>-PM<sub>2.5</sub>	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2.2 Screening (controlled), SGI used older PM10 factor, and assumed PM<sub>10</sub>-PM<sub>2.5</sub>
525	screen*	0.00220	0.00220				0.00074	0.00074				0.00005	0.00007	diff	SGI>	AP-42 Table 11.19.2.2 Screening (controlled), SGI used PM2.5/PM10 ratio of 0.1
525	reject bin*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used PM2.5/PM10 ratio of 0.1
* OILED PRODUCT																
<b>WATER SPRAYS</b>																
<b>SOURCE 530</b>																
<b>CONTROL COLLECTOR: DC</b>			C051D													
<b>SHIPPING TANKS</b>																
530	C110 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used PM2.5/PM10 ratio of 0.1
530	B110 bin*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used PM2.5/PM10 ratio of 0.1
530	B111 bin*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used PM2.5/PM10 ratio of 0.1
<b>Total Headlap Plant</b>																
<b>UNDERSIZE MATERIAL PRO Screening</b>																
<b>SOURCE 420</b>																
<b>CONTROL COLLECTOR: T</b>																
420	143 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	400 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	405 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	916 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	917 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	918 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	919 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	920 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	925 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	410 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	420 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	430 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	440 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420B	510 air classifier	0.02250	0.02250				0.01040	0.01040				0.00410	0.01040	diff		AP-42 Table 11.19.2.4 Classifiers (dry) with Fabric Filter Control, SGI used PM2.5/PM10 ratio of 0.1
<b>OILING SYSTEM</b>																
420	144 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	145 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	425 feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	426 feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
420	187 screw conveyor*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), the origin of SGI's factor is unclear, and appears to be an error	0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled), SGI used PM2.5/PM10 ratio of 0.1

PTE Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
420	410 screen* * OILED PRODUCT	0.00220	0.00220				0.00074	0.00074				0.00005	0.00007	diff	SGI>	AP-42 Table 11.19.2-2 Screening (controlled); SGI used PM2.5/PM10 ratio of 0.1
<b>SHIPPING TANKS</b>																
420	146 silo*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	147 silo*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	148 silo*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	921 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	922 conveyor	0.00300	0.00014	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point; SGI had used the "controlled" factor, but the product handled by this unit is reportedly not oiled.	0.00110	0.00005	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point; SGI had used the "controlled" factor, but the product handled by this unit is reportedly not oiled.	0.00017	0.00000	diff		See the PM10 difference explanation; also AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	923 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	924 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	450 elevator*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	460 elevator*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
<b>Total Undersize Material Pro</b>																
<b>Aggregate Plant Crushing/Conveying</b>																
<b>CONTROLLED WITH WATER</b>																
C120	METSO-Primary															
C300	Superior Patriot Secondary															
C300	Superior-Patriot Tertiary															
C1	Conveyor															
C2	Conveyor															
C3	Conveyor															
C4	Conveyor															
C5	Radial Stacker															
C6	Conveyor															
C7	Conveyor															
C8	Conveyor															
C9	Conveyor															
C10A	Conveyor															
C10B	Conveyor															
C11	Conveyor															
C12	Conveyor															
C13	Conveyor															
C14	Conveyor															
C15	Radial Stacker															
C16	Radial Stacker															
C17	Radial Stacker															
C18	Radial Stacker															
C19	Conveyor															
C20	Conveyor															
C21	Conveyor															
16	Emergency Generator															

NOTE: an asterisk, "\*" following a s



PTE Open Air Sources

Source ID	Source Name	Pollution Control Unit	Control Eff.	Other Limits	Max Throughput (Tons/Hour)	Op Hrs	Emission Factor Controlled			Uncontrolled Emission			Suppression Controlled Emission								
							E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	PTE (TSP) tons/yr	PTE (PM10) tons/yr	PTE (PM2.5) tons/yr	PTE (TSP) tons/yr	PTE (PM10) tons/yr	PTE (PM2.5) tons/yr	Cont (TSP) tons/yr	Cont (PM10) tons/yr	Cont (PM2.5) tons/yr			
<b>QUARRY AND PRIMARY CRUSHING</b>																					
106	Blasting	fugitive	0%		500	4,383	0.0005	based on based on a 1997 test at NC stone crushing facility	0.0005	based on based on a 1997 test at NC stone crushing facility	0.0005	PM2.5 assumed equal to PM10	0.55	0.55	0.55	0.55	0.55	0.55			
107	Loading		0%		500	8,760	0.0003	used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading, from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.0001	used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015	PM2.5/PM10 ratio of 0.15	0.66	0.22	0.03	0.66	0.22	0.03			
500	Hauling** ** Roadways are Watered	fugitive	75%		500	8,760	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	185.38	48.19	4.82	46.345	12.048	1.2048	46.34	12.05	1.20
<b>Sources: 201, 200B, 199, 202 CONTROLLED WITH WATER SPRAYS</b>																					
200B	Rock Stockpile	water spray		NSPS	500	8,760	0.0044	Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions.	0.0021	Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions.	0.0003	Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions.	9.55	4.519	0.684	9.554	4.519	0.684	9.554	4.519	0.684
199	Fines Stockpile	water spray	0%	NSPS	300	8,760	0.0044	Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions.	0.0021	Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions.	0.0003	Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions.	5.73	2.711	0.411	5.732	2.711	0.411	5.732	2.711	0.411
199	Fines Loading	water spray		NSPS	300	8,760	0.0003	used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading, from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.00010	used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015	PM2.5/PM10 ratio of 0.15				0.394	0.131	0.020			
199	Fines Dumping	water spray		NSPS	300	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.184	0.060	0.017			
199	Syntron Feeder	water spray		NSPS	500	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.307	0.101	0.028			
199	970 Conveyor	water spray		NSPS	500	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.307	0.101	0.028			
199	Fines Conveyor HP	water spray		NSPS	300	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.184	0.060	0.017			
201	100 ton Hopper	water spray		NSPS	500	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.307	0.101	0.028			
201	Grizzly Feeder	water spray		NSPS	500	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.307	0.101	0.028			
201	Fuller Jaw Crusher	water spray		NSPS	500	8,760	0.0012	AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.00054	AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.000100	AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)				2.628	1.183	0.219			
201	965 Conveyor	water spray		NSPS	500	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.307	0.101	0.028			
200B	6x12 Seco Screen	water spray		NSPS	500	8,760	0.0022	AP-42 Table 11.19.2-2 Screening (controlled)	0.00074	AP-42 Table 11.19.2-2 Screening (controlled)	0.00005	AP-42 Table 11.19.2-2 Screening (controlled)				4.818	1.621	0.110			
200B	5 1/2 Cone Crusher	water spray		NSPS	500	8,760	0.0012	AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.00054	AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.000100	AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)				2.628	1.183	0.219			
200B	971 Conveyor	water spray		NSPS	500	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.307	0.101	0.028			
<b>INTERMEDIATE CRUSHING</b>																					
202	Feeder	water spray			300	8,760	0.00014	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)				0.184	0.060	0.017			
<b>SOURCE 216, 217 CONTROL COLLECTOR: DOUBLE PULSE KING M200 D04</b>																					
217	Fines Screw I 05177	fugitive	0%		24	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.315	0.116	0.017	0.315	0.116	0.017	0.315	0.116	0.017
217	Fines Screw DP 165	fugitive	0%		24	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.315	0.116	0.017	0.315	0.116	0.017	0.315	0.116	0.017
217	Fines Screw DP	fugitive	0%		24	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.315	0.116	0.017	0.315	0.116	0.017	0.315	0.116	0.017
<b>SOURCE 210, 213, 215A, 216 CONTROL COLLECTOR: JOHNSON MARCH A D10</b>																					
216	4A TCM Screw	fugitive	0%		20	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.263	0.096	0.014	0.263	0.096	0.014	0.263	0.096	0.014
216	4B TCM Screw	fugitive	0%		20	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.263	0.096	0.014	0.263	0.096	0.014	0.263	0.096	0.014
216	1 TCM Screw	fugitive	0%		20	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.263	0.096	0.014	0.263	0.096	0.014	0.263	0.096	0.014
216	2 TCM Screw	fugitive	0%		20	8,760	0.003	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165	PM2.5/PM10 ratio of 0.15	0.263	0.096	0.014	0.263	0.096	0.014	0.263	0.096	0.014



PTE Open Air Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	S.G.I. E.F. (TSP) lbs/ton	Diff?	S.G.I.>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	S.G.I. E.F. (PM-10) lbs/ton	Diff?	S.G.I.>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	S.G.I. E.F. (PM2.5) lbs/ton	Diff?	S.G.I.>DEP	Comment if Diff.
<b>QUARRY AND PRIMARY CRUSHING</b>																
106	Blasting	0.000500					0.000500					0.000500				
107	Loading	0.000300					0.000100					0.000150				
500	Hauling** ** Roadways are Watered	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS					Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS					Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS				
<b>Sources: 201, 200B, 199, 202 CONTROLLED WITH WATER SPRAYS</b>																
200B	Rock Stockpile	0.004363	0.00436				0.0020634	0.0020634				0.0003125	0.0003125			
199	Fines Stockpile	0.004363	0.00436				0.0020634	0.0020634				0.0003125	0.0003125			
199	Fines Loading	0.000300	0.00030				0.0001000	0.0001000				0.0000150	0.0000100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
199	Fines Dumping	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
199	Syntron Feeder	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
199	970 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
199	Fines Conveyor HP	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
201	100 ton Hopper	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
201	Grizzly Feeder	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
201	Fuller Jaw Crusher	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
201	965 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
200B	6x12 Seco Screen	0.002200	0.0022				0.0007400	0.0007400				0.0000500	0.0000500			
200B	5 1/2 Cone Crusher	0.001200	0.0012				0.0005400	0.0009540	diff	SGI	DEP used AP-42 Table 11.19.2.2 Tertiary Crushing (controlled); origin of SGI factor is unclear.	0.0001000	0.0000100	diff		DEP used AP-42 Table 11.19.2.2 Tertiary Crushing (controlled); origin of SGI factor is unclear.
200B	971 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>INTERMEDIATE CRUSHING</b>																
202	Feeder	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>SOURCE 216, 217 CONTROL COLLECTOR: DOUBLE PULSE KING M200 D04</b>																
217	Fines Screw I 05177	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
217	Fines Screw DP 165	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
217	Fines Screw DP	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 210, 213, 215A, 216 CONTROL COLLECTOR: JOHNSON MARCH A D10</b>																
216	4A TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
216	4B TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
216	1 TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
216	2 TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)

PTE Open Air Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 216, 403</b>																
<b>CONTROL COLLECTOR: TORIT DAY "G"</b>																
D09																
216	986 Outside Conv.	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>SOURCE 483</b>																
<b>CONTROL COLLECTOR: CARTERDAY "D" 72RJ48</b>																
H02																
403	Fines Screw	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
403	Fines Screw	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>COLORING PLANT</b>																
<b>SOURCE 302, 317, 401B</b>																
<b>CONTROL COLLECTOR: 1D PANGBORN</b>																
E04																
302	Outside Hopper	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000520	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
302	5960 Conveyor	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000520	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
302	#1 waste screw Conv	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000520	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
216	#2 waste screw conv	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000000	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
317	Binder Feeder	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000000	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
317	Bulk Bagger Trans	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000000	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
<b>HEADLAP PLANT</b>																
<b>Crushing/screening</b>																
<b>SOURCE 515</b>																
<b>CONTROL COLLECTOR: DC 101</b>																
			C051A													
515	Surge pile	0.004363	0.004363				0.0020634	0.0020634				0.0003125	0.0003125			
515	C101 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
515	24x60 feeders	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>SOURCE 525</b>																
<b>CONTROL COLLECTOR: DC 103</b>																
			C051C													
<b>WATER SPRAYS</b>																
525	WS102 screw conv	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
525	WS101 screw conv	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
525	C107 conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
525	Waste surge	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>Aggregate Plant</b>																
<b>Crushing/Conveying</b>																
<b>CONTROLLED WITH WATER SPRAYS</b>																
C120	METSO-Primary	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
C300	Superior Patriot Secondary	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
C300	Superior-Patriot Tertiary	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
C1	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C2	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C3	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C4	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C5	Radial Stacker SPARE	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C6	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C7	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C8	Radial Stacker SPARE	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C9	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C10A	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C10B	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C11	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C12	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C13	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C14	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C15	Radial Stacker SPARE	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C16	Radial Stacker	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C17	Radial Stacker	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C18	Radial Stacker	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C19	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C20	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
C21	Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			

SGI 2022 Emissions Summary

<b>Item</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>
2022 Actual Stack	14.97	7.79	4.14
2022 Actual Point Source Fugitive	60.47	30.82	15.76
2022 Actual Open Air Source Fugitive	66.89	21.10	3.05
2022 Actual Exempt Fugitive	57.37	17.52	2.46
2022 Actual Non-Exempt Fugitives	70.00	34.41	16.36
2022 Actual (Fug+Stack)	142.34	59.72	22.95

Source ID	Source Name	Capture Efficiency	Max Thru	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>QUARRY AND PRIMARY CRUSHING</b>																					
All Fugitive Emissions																					
Sources: 201, 200B, 199, 202 CONTROLLED WITH WATER SPRAYS																					
All Fugitive Emissions																					
Total Primary																					
<b>INTERMEDIATE CRUSHING</b>																					
<b>SOURCE 510</b>																					
<b>CONTROL COLLECTOR: DONALDSON "H" J01</b>																					
510	910 Conveyor	0.95	300	5202	0.0030	0.0011	0.00017	0.117	0.043	0.006	2.224	0.815	0.122	0.000	0.000	0.000	0.000	0.128	0.047	0.007	0.000
510	977 Conveyor	0.95	300	5202	0.0030	0.0011	0.00017	0.117	0.043	0.006	2.224	0.815	0.122	0.000	0.000	0.000	0.000	0.128	0.047	0.007	0.000
510	8 x 24 screen	0.98	300	5202	0.0250	0.0087	0.00131	0.390	0.136	0.020	19.117	6.653	0.998	0.000	0.000	0.000	0.000	0.486	0.169	0.025	0.000
510	987 Conveyor	0.95	300	5202	0.0030	0.0011	0.00017	0.117	0.043	0.006	2.224	0.815	0.122	0.000	0.000	0.000	0.000	0.128	0.047	0.007	0.000
510	199 Elevator	0.99	300	5202	0.0030	0.0011	0.00017	0.023	0.009	0.001	2.317	0.850	0.127	0.000	0.000	0.000	0.000	0.035	0.013	0.002	0.000
510	979 Conveyor	0.95	300	5202	0.0030	0.0011	0.00017	0.117	0.043	0.006	2.224	0.815	0.122	0.000	0.000	0.000	0.000	0.128	0.047	0.007	0.000
510	5 1/2 Cone Crusher	0.98	300	5202	0.0054	0.0024	0.00036	0.084	0.037	0.006	4.129	1.835	0.275	0.000	0.000	0.000	0.000	0.105	0.047	0.007	0.000
<b>SOURCE 208, 209</b>																					
<b>CONTROL COLLECTORS: TORIT DAY "I" D08</b>																					
209	Rock Silos, 1C and 3C	0.99	300	5202	0.0030	0.0011	0.00017	0.023	0.009	0.001	2.317	0.850	0.127					0.035	0.013	0.002	0.000
<b>SOURCE 015</b>																					
<b>CONTROL COLLECTORS: AZTEC 435 C015C</b>																					
015	990 Conveyor	0.95	300	5202	0.0030	0.0011	0.00017	0.117	0.043	0.006	2.224	0.815	0.122	0.000	0.000	0.000	0.000	0.128	0.047	0.007	0.000
015	Dryer #400	0.995	300	5202	2.680	1.460	0.830	10.456	5.696	3.238	2080.7	1133.5	644.4	0.168	0.168	0.168	0.503	20.861	11.365	6.461	0.503
015	991 Conveyor	0.95	300	5202	0.0030	0.0011	0.00017	0.117	0.043	0.006	2.224	0.815	0.122	0.000	0.000	0.000	0.000	0.128	0.047	0.007	0.000

2022 Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>SOURCE 218, 208</b>																					
<b>CONTROL COLLECTOR: SINGLE PULSE KING M100 D02</b>																					
218	198 Elevator	0.99	400	5202	0.0030	0.0011	0.00017	0.031	0.011	0.002	3.090	1.133	0.170	0.000	0.000	0.000	0.000	0.047	0.017	0.003	0.000
218	138 Screen	0.98	180	5202	0.0250	0.0087	0.00131	0.234	0.081	0.012	11.470	3.992	0.599	0.000	0.000	0.000	0.000	0.291	0.101	0.015	0.000
<b>SOURCE 216, 218</b>																					
<b>CONTROL COLLECTOR: CARTERDAY F D09</b>																					
218	136 Screen (200)	0.98	400	5202	0.0250	0.0087	0.00131	0.520	0.181	0.027	25.490	8.870	1.331	0.000	0.000	0.000	0.000	0.648	0.225	0.034	0.000
218	Feeder 300 crusher	0.98	120	5202	0.0054	0.0024	0.00036	0.034	0.015	0.002	1.652	0.734	0.110	0.000	0.000	0.000	0.000	0.042	0.019	0.003	0.000
218	Feeder 310 crusher	0.98	120	5202	0.0054	0.0024	0.00036	0.034	0.015	0.002	1.652	0.734	0.110	0.000	0.000	0.000	0.000	0.042	0.019	0.003	0.000
218	Feeder 320 crusher	0.98	120	5202	0.0054	0.0024	0.00036	0.034	0.015	0.002	1.652	0.734	0.110	0.000	0.000	0.000	0.000	0.042	0.019	0.003	0.000
218	Feed Bin for 310/320	0.99	160	5202	0.0054	0.0024	0.00036	0.022	0.010	0.001	2.225	0.989	0.148	0.000	0.000	0.000	0.000	0.034	0.015	0.002	0.000
218	300 VSI/4G VSI Crusher (340 V)	0.98	250	5202	0.0054	0.0024	0.00036	0.070	0.031	0.005	3.441	1.529	0.229	0.000	0.000	0.000	0.000	0.087	0.039	0.006	0.000
218	transfer box 310/320	0.99	160	5202	0.0030	0.0011	0.00017	0.012	0.005	0.001	1.236	0.453	0.068	0.000	0.000	0.000	0.000	0.019	0.007	0.001	0.000
216	3C Conveyor	0.95	150	5202	0.0030	0.0011	0.00017	0.059	0.021	0.003	1.112	0.408	0.061	0.000	0.000	0.000	0.000	0.064	0.023	0.004	0.000
216	9C Conveyor	0.95	150	5202	0.0030	0.0011	0.00017	0.059	0.021	0.003	1.112	0.408	0.061	0.000	0.000	0.000	0.000	0.064	0.023	0.004	0.000
<b>SOURCE 216, 218</b>																					
<b>CONTROL COLLECTOR: DOUBLE PULSE KING M200 D04</b>																					
218	48" gyradisc 310	0.98	160	5276	0.0054	0.0024	0.00036	0.046	0.020	0.003	2.234	0.993	0.149	0.000	0.000	0.000	0.000	0.057	0.025	0.004	0.000
218	957 Conveyor	0.95	160	5202	0.0030	0.0011	0.00017	0.062	0.023	0.003	1.186	0.435	0.065	0.000	0.000	0.000	0.000	0.068	0.025	0.004	0.000
218	958 conveyor	0.95	160	5202	0.0030	0.0011	0.00017	0.062	0.023	0.003	1.186	0.435	0.065	0.000	0.000	0.000	0.000	0.068	0.025	0.004	0.000
218	956 Conveyor	0.95	160	5202	0.0030	0.0011	0.00017	0.062	0.023	0.003	1.186	0.435	0.065	0.000	0.000	0.000	0.000	0.068	0.025	0.004	0.000
218	Feeder 300 crusher alt	0.98	120	5202	0.0030	0.0011	0.00017	0.019	0.007	0.001	0.918	0.336	0.050	0.000	0.000	0.000	0.000	0.023	0.009	0.001	0.000
216	17C Conveyor TP	0.95	60	5202	0.0030	0.0011	0.00017	0.023	0.009	0.001	0.445	0.163	0.024	0.000	0.000	0.000	0.000	0.026	0.009	0.001	0.000
<b>SOURCE 218, 402</b>																					
<b>CONTROL COLLECTOR: CARTERDAY B H01</b>																					
402A	Hopper for 300	0.99	250	5202	0.0030	0.0011	0.00017	0.020	0.007	0.001	1.931	0.708	0.106	0.000	0.000	0.000	0.000	0.029	0.011	0.002	0.000
402A	52C Conveyor	0.95	250	5202	0.0030	0.0011	0.00017	0.098	0.036	0.005	1.853	0.680	0.102	0.000	0.000	0.000	0.000	0.107	0.039	0.006	0.000
402A	REMCO 300 VSI/4G	0.98	250	5202	0.0054	0.0024	0.00036	0.070	0.031	0.005	3.441	1.529	0.229	0.000	0.000	0.000	0.000	0.087	0.039	0.006	0.000
402A	53C Conveyor	0.95	250	5202	0.0030	0.0011	0.00017	0.098	0.036	0.005	1.853	0.680	0.102	0.000	0.000	0.000	0.000	0.107	0.039	0.006	0.000
402A	20 Elevator	0.99	250	5202	0.0030	0.0011	0.00017	0.020	0.007	0.001	1.931	0.708	0.106	0.000	0.000	0.000	0.000	0.029	0.011	0.002	0.000
402A	GPS Screen	0.98	250	5202	0.0250	0.0087	0.00131	0.325	0.113	0.017	15.931	5.544	0.832	0.000	0.000	0.000	0.000	0.405	0.141	0.021	0.000
402A	51C Conveyor	0.95	250	5202	0.0030	0.0011	0.00017	0.098	0.036	0.005	1.853	0.680	0.102	0.000	0.000	0.000	0.000	0.107	0.039	0.006	0.000
402A	54C Conveyor	0.95	250	5202	0.0030	0.0011	0.00017	0.098	0.036	0.005	1.853	0.680	0.102	0.000	0.000	0.000	0.000	0.107	0.039	0.006	0.000
218	50C Conveyor	0.95	250	5202	0.0030	0.0011	0.00017	0.098	0.036	0.005	1.853	0.680	0.102	0.000	0.000	0.000	0.000	0.107	0.039	0.006	0.000
218	46C Conveyor	0.95	250	5202	0.0030	0.0011	0.00017	0.098	0.036	0.005	1.853	0.680	0.102	0.000	0.000	0.000	0.000	0.107	0.039	0.006	0.000

2022 Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions						
					E.F. (TSP) lbs/ton	E.F. (PM10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr			
<b>SOURCE 210, 213, 215A CONTROL COLLECTOR: JOHNSON MARCH A D10</b>																								
<b>MILL CRUSHING</b>																								
210	#980 waste conveyor (old 55)	0.95	100	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.040	0.015	0.002	0.752	0.276	0.041	0.000	0.000	0.000	0.000	0.043	0.016	0.002	0.000
210	3 Bin	0.99	100	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.008	0.003	0.000	0.783	0.287	0.043	0.000	0.000	0.000	0.000	0.012	0.004	0.001	0.000
210	4 Feeder	0.95	60	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.024	0.009	0.001	0.451	0.165	0.025	0.000	0.000	0.000	0.000	0.026	0.010	0.001	0.000
210	4 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	5 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	2 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	3 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	6 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	7 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	8 Screen	0.98	75	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.034	0.005	4.847	1.687	0.253	0.000	0.000	0.000	0.000	0.123	0.043	0.006	0.000
210	37 Screen	0.98	40	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.053	0.018	0.003	2.585	0.900	0.135	0.000	0.000	0.000	0.000	0.066	0.023	0.003	0.000
210	11 Screen	0.98	40	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.053	0.018	0.003	2.585	0.900	0.135	0.000	0.000	0.000	0.000	0.066	0.023	0.003	0.000
210	16 Screen	0.98	40	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.053	0.018	0.003	2.585	0.900	0.135	0.000	0.000	0.000	0.000	0.066	0.023	0.003	0.000
210	41C Conveyor	0.95	100	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.040	0.015	0.002	0.752	0.276	0.041	0.000	0.000	0.000	0.000	0.043	0.016	0.002	0.000
210	8C Conveyor	0.95	100	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.040	0.015	0.002	0.752	0.276	0.041	0.000	0.000	0.000	0.000	0.043	0.016	0.002	0.000
210	31 Screen	0.98	30	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.040	0.014	0.002	1.939	0.675	0.101	0.000	0.000	0.000	0.000	0.049	0.017	0.003	0.000
210	32 Screen	0.98	30	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.040	0.014	0.002	1.939	0.675	0.101	0.000	0.000	0.000	0.000	0.049	0.017	0.003	0.000
210	33 Screen	0.98	30	5276	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.040	0.014	0.002	1.939	0.675	0.101	0.000	0.000	0.000	0.000	0.049	0.017	0.003	0.000
210	9 Elevator	0.99	60	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.005	0.002	0.000	0.470	0.172	0.026	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
210	#200 waste elevator (old #8)	0.99	60	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.005	0.002	0.000	0.470	0.172	0.026	0.000	0.000	0.000	0.000	0.007	0.003	0.000	0.000
215A	TCM Bins(1, 2, 4A, 4B, 5)	0.99	60	1	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
213	Gran Silos 2C, 4C and Tanks 3	0.99	100	5276	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.008	0.003	0.000	0.783	0.287	0.043	0.000	0.000	0.000	0.000	0.0118	0.0043	0.00065	0.00000







Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>SOURCE 403</b>																					
<b>CONTROL COLLECTOR: CARTERDAY "D" 72RJ48 H02</b>																					
403	Fines Silos, 1 and 2 S404	0.99	130	5276	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.010	0.004	0.0006	1.019	0.373	0.056	0.000	0.000	0.000	0.000	0.015	0.006	0.0008	0.000
<b>Total Intermediate Crushing</b>																					
<b>COLORING PLANT</b>																					
<b>SOURCE 317, 401B, 302</b>																					
<b>CONTROL COLLECTOR: DONALDSON 484RF #440 C104</b>																					
302	961B Conveyor	0.95	150	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.056	0.020	0.003	1.061	0.389	0.058	0.000	0.000	0.000	0.000	0.061	0.022	0.0034	0.000
302	7B Conveyor	0.95	150	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.056	0.020	0.003	1.061	0.389	0.058	0.000	0.000	0.000	0.000	0.061	0.022	0.0034	0.000
302	9B Conveyor	0.95	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.0018	0.000
302	12B Conveyor	0.95	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.0018	0.000
302	13B Conveyor	0.95	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.0018	0.000
302	14B Conveyor	0.95	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.0018	0.000
302	11B Elevator	0.99	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.0005	0.000
302	Granules Silos Green and Grey	0.99	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.007	0.003	0.000	0.737	0.270	0.041	0.000	0.000	0.000	0.000	0.011	0.004	0.0006	0.000
401B	COLLECTOR FINES elevator	0.99	40	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.003	0.001	0.000	0.295	0.108	0.016	0.000	0.000	0.000	0.000	0.004	0.0016	0.00024	0.000
317	#4 Fines Tank	0.99	40	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.003	0.001	0.000	0.295	0.108	0.016	0.000	0.000	0.000	0.000	0.004	0.002	0.000	0.000

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions						
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr			
<b>SOURCE 302,303,304,317,401B</b>																								
<b>CONTROL COLLECTOR: DONALDSON 484RF #445 C105</b>																								
302	7B Elevator	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
302	7B Screen	0.98	80	4965	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.035	0.005	4.866	1.693	0.254	0.000	0.000	0.000	0.000	0.124	0.043	0.006	0.000
302	55K Bin	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
302	55K Conveyor	0.95	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.002	0.000
302	6B Screen	0.98	80	4965	0.0250	AP-42 Table 11.19.2-2 Screening	0.0087	AP-42 Table 11.19.2-2 Screening	0.00131	PM2.5/PM10 ratio of 0.15	0.099	0.035	0.005	4.866	1.693	0.254	0.000	0.000	0.000	0.000	0.124	0.043	0.006	0.000
302	56K Bin	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
302	5630 Feeder	0.95	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.002	0.000
302	56K Conveyor OUT	0.95	100	1	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
302	16B Conveyor OUT	0.95	100	1	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
302	8B ext. Conveyor OUT	0.95	100	1	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
303	1D Preheater	0.995	80	4965	2.680	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	2.661	1.450	0.824	529.6	288.5	164.0	0.020	0.020	0.020	0.061	5.329	2.912	1.664	0.061
303	1D Elevator	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
303	2D Elevator	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
303	1D Hopper	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
303	3D Hopper	0.99	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
304	2D Preheater	0.995	80	4965	2.680	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830	AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	2.661	1.450	0.824	529.587	288.506	164.014	0.020	0.020	0.020	0.061	5.309	2.892	1.644	0.061
401B	46 Conveyor G-11	0.95	80	4965	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031					0.033	0.012	0.002	0.000
317	35K Screw PANG 6 OUT	0.95	50	1	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
317	34K Screw PANG 5 OUT	0.95	50	1	0.0030	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011	AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017	PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

2022 Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr	PTE (PM2.5 Cond) ton/yr
<b>SOURCE 302.317.401B</b>																					
<b>CONTROL COLLECTOR: CARTERDAY E 232RF8 H04</b>																					
<b>TENNIS COURT MATERIAL PROCESS</b>																					
317	Binder Storage	0.99	30	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	TCM Bin 2 and 3	0.99	150	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	1 Bin Binder	0.99	10	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	1 Screw Binder	0.95	10	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	2 Screw Binder	0.95	10	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	4B Screw Binder	0.95	10	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	Recycle feeder	0.95	10	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
317	Recycle feeder	0.95	10	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	
317	2T Binder Elevator	0.99	45	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	
317	TCM Hopper	0.99	45	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	
317	1T Mixer	0.95	45	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	
317	44K Screw	0.95	50	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	
317	43K Screw 30'	0.95	50	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	
317	C-D Screw 40'	0.95	50	1	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.00000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000	0.00000	0.00000	0.000	0.000	0.000	
317	Fines Loading	0.95	50	4965	0.0003 used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2	0.0001 used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2	0.000015 PM2.5/PM10 ratio of 0.15	0.00186	0.00062	0.00009	0.035	0.012	0.002	0.000	0.000	0.00000	0.00000	0.002	0.001	0.00010	0.00000
317	Fines air slide	0.95	50	4965	0.0003 used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2	0.0001 used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2	0.000015 PM2.5/PM10 ratio of 0.15	0.00186	0.00062	0.00009	0.035	0.012	0.002	0.000	0.000	0.00000	0.00000	0.002	0.001	0.00010	0.00000
317	Fines Tank	0.99	100	4965	0.0003 used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2	0.0001 used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2	0.000015 PM2.5/PM10 ratio of 0.15	0.00074	0.00025	0.00004	0.074	0.025	0.004	0.000	0.000	0.00000	0.00000	0.001	0.000	0.00006	0.00000
317	3B Elevator G-11	0.99	45	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.000335	0.00123	0.00018	0.332	0.122	0.018	0.000	0.000	0.00000	0.00000	0.005	0.002	0.00028	0.00000
302	12B ELEVATOR	OUT	100	0	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
302	18K Elevator	OUT	100	0	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
401B	3T Conveyor G-11	0.95	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.0018	0.00000
401B	Hopper G-11	0.99	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.0005	0.00000
401B	Feeder G-11	0.95	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000117 PM2.5/PM10 ratio of 0.15	0.030	0.011	0.002	0.566	0.208	0.031	0.000	0.000	0.000	0.000	0.033	0.012	0.0018	0.00000
401B	Oiler G-11*	0.95	80	4965	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.026	0.009	0.002	0.000	0.000	0.000	0.000	0.002	0.001	0.0001	0.00000



2022 Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions					
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) tons/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 filtr) ton/yr	PTE (PM2.5 Cond) ton/yr		
<b>SOURCE 308A</b>																							
<b>CONTROL COLLECTOR: DONALDSON #1 BAGHOUSE G05</b>																							
308A	10D Conveyor	0.95	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.037	0.014	0.002	0.745	0.273	0.041	0.000	0.000	0.000	0.000	0.041	0.015	0.002	0.000		
308A	8 Elevator	0.99	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.007	0.003	0.000	0.745	0.273	0.041	0.000	0.000	0.000	0.000	0.011	0.004	0.001	0.000		
308A	17 Elevator	0.99	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.007	0.003	0.000	0.745	0.273	0.041	0.000	0.000	0.000	0.000	0.011	0.004	0.001	0.000		
308A	Waste Elevator	0.99	0	4965				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
308A	9K Conveyor	0.95	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.037	0.014	0.002	0.745	0.273	0.041	0.000	0.000	0.000	0.000	0.041	0.015	0.002	0.000		
308A	2D Oilier*	0.95	100	4965	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000		
308A	2D Transfer Bin	0.99	80	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.006	0.002	0.000	0.590	0.216	0.032	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000		
308A	2D Oilier Bin	0.99	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.007	0.003	0.000	0.737	0.270	0.041	0.000	0.000	0.000	0.000	0.011	0.004	0.001	0.000		
308A	2D Oil Screen	0.98	100	4965	0.0250 AP-42 Table 11.19.2-2 Screening	0.0087 AP-42 Table 11.19.2-2 Screening	0.00131 PM2.5/PM10 ratio of 0.15	0.124	0.043	0.006	6.082	2.117	0.317	0.000	0.000	0.000	0.000	0.155	0.054	0.008	0.000		
308A	2D Feeder	0.95	100	4965	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.00017 PM2.5/PM10 ratio of 0.15	0.037	0.014	0.002	0.708	0.259	0.039	0.000	0.000	0.000	0.000	0.041	0.015	0.002	0.000		
308A	2 Klin	0.995	43	4965	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.430	0.779	0.443	284.7	155.1	88.2					2.854	1.555	0.884	0.000		
308A	4 Klin	0.995	43	4965	2.680 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.460 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	0.830 AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control	1.430	0.779	0.443	284.7	155.1	88.2					2.854	1.555	0.884	0.000		
308A	Klin Gas Burning	0.995																0.112	0.112	0.112	0.335		
				S319														0.112	0.112	0.112	0.335		
<b>SOURCE 308A, 309,311A, 302</b>																							
<b>CONTROL COLLECTOR: FISHER KLOSTERMAN #4 SCRUBBER G02</b>																							
309	6 Cooler	0.98	80	4965	0.0005 PM-PM10-PM2.5	0.0005 Factor used is about 10x the PM10 factor for dust emissions from wet suppression controlled	0.0005 PM-PM10-PM2.5	0.002	0.002	0.00199	0.097	0.097	0.097	0.000	0.000	0.00000	0.00000	0.002	0.002	0.0025	0.0000		
311A	5 Cooler	0.98	80	4965	0.0005 PM-PM10-PM2.5	0.0005 Factor used is about 10x the PM10 factor for dust emissions from wet suppression controlled	0.0005 PM-PM10-PM2.5	0.002	0.002	0.00199	0.097	0.097	0.097	0.000	0.000	0.00000	0.00000	0.002	0.002	0.0025	0.0000		
308A	1 Cooler	0.98	80	4965	0.0005 PM-PM10-PM2.5	0.0005 Factor used is about 10x the PM10 factor for dust emissions from wet suppression controlled	0.0005 PM-PM10-PM2.5	0.002	0.002	0.00199	0.097	0.097	0.097	0.000	0.000	0.00000	0.00000	0.002	0.002	0.0025	0.0000		
302	40 Screen	0.98	80	4965	0.0250 AP-42 Table 11.19.2-2 Screening	0.0087 AP-42 Table 11.19.2-2 Screening	0.00131 PM2.5/PM10 ratio of 0.15	0.099	0.035	0.0052	4.866	1.693	0.254	0.000	0.000	0.00000	0.00000	0.124	0.043	0.0065	0.0000		





2022 Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions			
					E.F. (TSP) lbs/ton	E.F. (PM10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr
213B	28K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	30K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	31K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	15K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	22K Elevator*	0.99	100	4965	0.00014	0.000046	0.000013	0.000	0.000	0.000	0.034	0.011	0.003	0.000	0.000	0.000	0.000	0.001	0.000	0.0000	0.000
213B	38K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	37K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	52K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	86K Elevator*	0.99	100	4965	0.00014	0.000046	0.000013	0.000	0.000	0.000	0.034	0.011	0.003	0.000	0.000	0.000	0.000	0.001	0.000	0.0000	0.000
213B	92K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	91K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	90K Conveyor*	0.95	100	4965	0.00014	0.000046	0.000013	0.002	0.001	0.000	0.033	0.011	0.003	0.000	0.000	0.000	0.000	0.002	0.001	0.0002	0.000
213B	36K Screen*	0.95	100	4965	0.0022	0.00074	0.00005	0.027	0.009	0.001	0.519	0.175	0.012	0.000	0.000	0.000	0.000	0.030	0.010	0.0007	0.000
213B	Granules Loading*	0.95	100	4965	0.0003	0.00014	0.00002	0.004	0.001	0.000	0.071	0.024	0.004	0.000	0.000	0.000	0.000	0.004	0.001	0.0002	0.000
<b>Total Coloring Plant</b>																					
<b>HEADLAP PLANT</b>																					
<b>Crushing/screening</b>																					
<b>SOURCE 515</b>																					
<b>CONTROL COLLECTOR: DC 101</b>					<b>C051A</b>																
515	C102 conveyor	0.95	250	3275	0.0030	0.0011	0.00017	0.061	0.023	0.003	1.228	0.450	0.068	0.000	0.000	0.000	0.000	0.068	0.025	0.004	0.000
515	dryer	0.995	200	3275	2.680	1.460	0.830	4.389	2.391	1.359	877.700	478.150	271.825	0.032	0.032	0.032	0.097	8.777	4.782	2.718	0.097
515	BE101 elevator	0.99	350	3275	0.0030	0.0011	0.00017	0.017	0.006	0.001	1.719	0.630	0.095	0.000	0.000	0.000	0.000	0.026	0.009	0.001	0.000
515	C103 Conveyor	0.95	250	3275	0.0030	0.0011	0.00017	0.061	0.023	0.003	1.228	0.450	0.068	0.000	0.000	0.000	0.000	0.068	0.025	0.004	0.000
<b>SOURCE 520</b>					<b>C051B</b>																
<b>CONTROL COLLECTOR: DC 102</b>																					
520	SCR101 TD screen	0.98	340	3275	0.0250	0.0087	0.00131	0.278	0.097	0.015	13.919	4.844	0.727	0.000	0.000	0.000	0.000	0.348	0.121	0.018	0.000
520	CR101 crusher	0.98	250	3275	0.0054	0.0024	0.00036	0.044	0.020	0.003	2.211	0.983	0.147	0.000	0.000	0.000	0.000	0.055	0.025	0.004	0.000
520	B101 bin	0.99	90	3275	0.0030	0.0011	0.00017	0.004	0.002	0.000	0.442	0.162	0.024	0.000	0.000	0.000	0.000	0.007	0.002	0.000	0.000
520	BF101 feeder conv.	0.95	90	3275	0.0030	0.0011	0.00017	0.022	0.008	0.001	0.420	0.154	0.023	0.000	0.000	0.000	0.000	0.024	0.009	0.001	0.000
520	BE102 elevator	0.99	330	3275	0.0030	0.0011	0.00017	0.016	0.006	0.001	1.605	0.588	0.088	0.000	0.000	0.000	0.000	0.024	0.009	0.001	0.000
520	B102 bin	0.99	250	3275	0.0030	0.0011	0.00017	0.012	0.005	0.001	1.216	0.446	0.067	0.000	0.000	0.000	0.000	0.018	0.007	0.001	0.000
520	BF102	0.95	125	3275	0.0030	0.0011	0.00017	0.031	0.011	0.002	0.583	0.214	0.032	0.000	0.000	0.000	0.000	0.034	0.012	0.002	0.000
520	BF103	0.95	125	3275	0.0030	0.0011	0.00017	0.031	0.011	0.002	0.583	0.214	0.032	0.000	0.000	0.000	0.000	0.034	0.012	0.002	0.000
520	CR102 crusher	0.98	250	3275	0.0054	0.0024	0.00036	0.044	0.020	0.003	2.166	0.963	0.144	0.000	0.000	0.000	0.000	0.055	0.024	0.004	0.000
520	CR103 crusher	0.98	250	3275	0.0054	0.0024	0.00036	0.044	0.020	0.003	2.166	0.963	0.144	0.000	0.000	0.000	0.000	0.055	0.024	0.004	0.000
520	C104 conveyor	0.98	240	3275	0.0030	0.0011	0.00017	0.024	0.009	0.001	1.155	0.424	0.064	0.000	0.000	0.000	0.000	0.029	0.011	0.002	0.000



2022 Point Sources

Source ID	Source Name	Capture Efficiency	Max Thru Tons/Hour	Op Hrs	Emission Factors			Uncaptured Fugitive Emissions			Captured Emissions			Fuel Burning Emissions				Calculation Columns, Total Emissions				
					E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	(TSP) tons/year	(PM10) tons/year	(PM2.5) tons/year	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5) ton/yr	(TSP) ton/yr	(PM10) ton/yr	(PM2.5 Filtr) ton/yr	(PM2.5 Cond) ton/yr	PTE (TSP) ton/yr	PTE (PM10) ton/yr	PTE (PM2.5 Filtr) ton/yr	PTE (PM2.5 Cond) ton/yr	
420	410 screen* * OILED PRODUCT	0.98	80	4116	0.0022 AP-42 Table 11.19.2-2 Screening (controlled)	0.00074 AP-42 Table 11.19.2-2 Screening (controlled)	0.00005 AP-42 Table 11.19.2-2 Screening (controlled)	0.007	0.002	0.000	0.355	0.119	0.008	0.000	0.000	0.000	0.000	0.000	0.009	0.003	0.000	0.000
<b>SHIPPING TANKS</b>																						
420	146 silo*	0.99	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.029	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
420	147 silo*	0.99	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.029	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
420	148 silo*	0.99	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.029	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
420	921 conveyor*	0.95	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.027	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000
420	922 conveyor*	0.95	100	4116	0.0030 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.00017 PM2.5/PM10 ratio of 0.15	0.031	0.011	0.002	0.587	0.215	0.003	0.000	0.000	0.000	0.000	0.000	0.034	0.012	0.002	0.000
420	923 conveyor*	0.95	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.027	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000
420	924 conveyor*	0.95	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.001	0.000	0.000	0.027	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000
420	450 elevator*	0.99	80	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.023	0.007	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
420	460 elevator*	0.99	100	4116	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000	0.000	0.000	0.029	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Total Undersize Material Processing Plant</b>								0.449	0.170	0.033	15.889	6.075	1.262	0.000	0.000	0.000	0.000	0.000	0.529	0.200	0.040	0.000
								0.956	0.361	0.071	33.816	12.929	2.685	0.000	0.000	0.000	0.000	0.000	1.125	0.426	0.085	0.000
<b>Aggregate Plant Crushing/Conveying</b>																						
<b>CONTROLLED WITH WATER SPRAYS</b>																						
C120	METSO-Primary	ALL	FUGITIVE	EMMISSIONS																		
C300	Superior-Patriot Secondary																					
C300	Superior-Patriot Tertiary																					
C1	Conveyor																					
C2	Conveyor																					
C3	Conveyor																					
C4	Conveyor																					
C5	Radial Stacker																					
C6	Conveyor																					
C7	Conveyor																					
C8	Conveyor																					
C9	Conveyor																					
C10A	Conveyor																					
C10B	Conveyor																					
C11	Conveyor																					
C12	Conveyor																					
C13	Conveyor																					
C14	Conveyor																					
C15	Radial Stacker																					
C16	Radial Stacker																					
C17	Radial Stacker																					
C18	Radial Stacker																					
C19	Conveyor																					
C20	Conveyor																					
C21	Conveyor																					
16	Emergency Generator			500									0.116	0.116	0.116	0.131						
<b>Total Facility Point Source PM</b>								60.472	30.824	15.762	6744.565	3589.480	1970.087	0.656	0.656	0.656	1.753	TSP 75.443	PM10 38.617	PM2.5 Filtr 19.897	PM2.5 Cond 1.622	

NOTE: an asterisk, \*\*\* following a source name denotes that the product has been oiled prior to being handled by the specified equipment.

stack - non-fuel	12.562	5.384	1.726
stack - fuel	2.409	2.409	2.409
stack - total	14.971	7.793	4.136

Control Efficiency	0.995
PM2.5/PM10	0.15

Conveyors	0.95
Silos/Bins	0.99
Elevators	0.99
Screens	0.98
Crushers	0.98

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>QUARRY AND PRIMARY CRUSHING</b>																
	All Fugitive Emissions															
	Sources: 201, 200B, 199, 202															
	CONTROLLED WITH WATER															
	All Fugitive Emissions															
	Total Primary															
<b>INTERMEDIATE CRUSHING</b>																
	<b>SOURCE 510</b>															
	CONTROL COLLECTOR: DO															
510	910 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	977 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	8 x 24 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	987 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	199 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00001	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	979 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
510	5 1/2 Cone Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
	<b>SOURCE 208, 209</b>															
	CONTROL COLLECTORS: T															
209	Rock Silos, 1C and 3C	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
	<b>SOURCE 015</b>															
	CONTROL COLLECTORS: A															
015	990 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
015	Dryer #400	2.68	2.68000				1.46000	1.46000				0.83000	0.83000			
015	991 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)

2022 Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff? SGI>DEP	Comment if Diff.
<b>SOURCE 218, 208</b>													
<b>CONTROL COLLECTOR: SIN</b>													
218	198 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	138 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216, 218</b>													
<b>CONTROL COLLECTOR: CAI</b>													
218	136 Screen (200)	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 300 crusher	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 310 crusher	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 320 crusher	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	Feed Bin for 310/320	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	300 VSI/4G VSI Crusher (340 V	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	transfer box 310/320	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	3C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	9C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216, 218</b>													
<b>CONTROL COLLECTOR: DOI</b>													
218	48' gyradisc 310	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	957 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	958 conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	956 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	Feeder 300 crusher alt	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	17C Conveyor TP	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 218, 402</b>													
<b>CONTROL COLLECTOR: CAI</b>													
402A	Hopper for 300	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	52C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	REMCO 300 VS/4G	0.00540	0.00540			0.00240	0.00240			0.00036	0.00024	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	53C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	20 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	GPS Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	51C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
402A	54C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	50C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
218	46C Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 210, 213, 215A</b>																
<b>CONTROL COLLECTOR: JOH</b>																
<b>MILL CRUSHING</b>																
210	#980 waste conveyor (old 55)	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	3 Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	4 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	4 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	5 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	2 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	3 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	6 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	7 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	8 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	37 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	11 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	16 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	41C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	8C Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	31 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	32 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	33 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	9 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	#200 waste elevator (old #8)	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
215A	TCM Bins(1, 2, 4A, 4B, 5)	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
213	Gran Silos 2C, 4C and Tanks 3	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff? SGI>DEP	Comment if Diff.
<b>SOURCE 211, 403</b>													
<b>CONTROL COLLECTOR: JO</b>													
211	2 Bin	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	16 Spill Box	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	14 Spill Box	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	13 Feeder	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	19 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	20 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	21 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	22 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	23 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	24 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	15 Spill box	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	25 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	26 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	27 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	18 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide B	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide J-Ms	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide J-Ms	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 210, 211, 217</b>													
<b>CONTROL COLLECTOR: TOI</b>													
<b>484 RFW12AW BH500</b>													
210	57 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	22 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	5 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	4 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	6 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210	7 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	56 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	21 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	13 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	16 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	14 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	15 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211	19 Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
217	Conveyor 987	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM10) lbs/ton	SGI E.F. (PM10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 210A &amp; 211B, 403</b>																
<b>CONTROL COLLECTOR: DO</b>																
210A	1 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	2 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	3 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	1 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	2 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
210A	3 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	8 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	9 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	10 Feed Box	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	8 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	9 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
211B	10 Roll Crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Screw H	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216, 403</b>																
<b>CONTROL COLLECTOR: TO</b>																
216	945 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	195 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	905 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	910 Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	985 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	578 Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	365 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	260 Rotary Oiler*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled
216	915 Screen*	0.00220	0.02500	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00074	0.00870	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00005	0.00087	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled
216	Screw* 182	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled
216	950 Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled
216	Fines Conv. Slide	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	336 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
216	5B Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	Fines Slide C-D	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 216</b>																
<b>CONTROL COLLECTOR: CAI</b>																
216	49C Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled
216	Silo 1 Natural*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*), SGI used uncontrolled
<b>SOURCE 403</b>																
<b>CONTROL COLLECTOR: CAI</b>																
403	19 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
403	58 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)



Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff? SGI>DEP	Comment if Diff.	
<b>SOURCE 403</b>														
<b>CONTROL COLLECTOR: CA</b>														
403	Fines Silos, 1 and 2	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
<b>Total Intermediate Crushing</b>														
<b>COLORING PLANT</b>														
<b>SOURCE 317, 401B, 302</b>														
<b>CONTROL COLLECTOR: DO</b>														
302	961B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	7B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	9B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	12B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	13B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	14B Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	11B Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
302	Granules Silos Green and Grey	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
401B	COLLECTOR FINES elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
317	#4 Fines Tank	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)	
											0.00000			

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 302,303,304,317,401</b>																
<b>CONTROL COLLECTOR: DO</b>																
302	7B Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	7B Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	55K Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	55K Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	6B Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	56K Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	5930 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	50K Conveyor OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	16B Conveyor OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	8B ext. Conveyor OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	1D Preheater	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flank Drying with Fabric Filter Control
303	1D Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	2D Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	1D Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
303	3D Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
304	2D Preheater	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flank Drying with Fabric Filter Control
401B	46 Conveyor G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	35K Screw PANG 6 OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	34K Screw PANG 5 OUT	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 302,317,401B</b>																
<b>CONTROL COLLECTOR: CAI</b>																
<b>TENNIS COURT MATERIAL PROCESS</b>																
317	Binder Storage	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	TCM Bin 2 and 3	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	1 Bin Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	1 Screw Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	2 Screw Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	4B Screw Binder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	Recycle feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	Recycle feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	2T Binder Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	TCM Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	1T Mixer	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	44K Screw	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	43K Screw 30'	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	C-D Screw 40'	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
317	Fines Loading	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		
317	Fines air slide	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		
317	Fines Tank	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		
317	3B Elevator G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	12B ELEVATOR	OUT	0.00300	0.00300			0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
302	18K Elevator	OUT	0.00300	0.00300			0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
401B	3T Conveyor G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
401B	Hopper G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
401B	Feeder G-11	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
401B	Oiler G-11*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM=PM10*PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM=PM10*PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM=PM10*PM2.5

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 303, 305A</b>																
<b>CONTROL COLLECTOR: DO</b>																
303	2D Hopper	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	1 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	2 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	3 Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	1 Paint Mixer	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10-PM10-PM2.5; SGI used PM2.5-PM10 ratio of 0.1
305A	2 Paint Mixer	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10-PM10-PM2.5; SGI used PM2.5-PM10 ratio of 0.1
305A	3 Paint Mixer	0.00050	0.00050				0.00050	0.00050				0.00050	0.00005	diff		PM10-PM10-PM2.5; SGI used PM2.5-PM10 ratio of 0.1
305A	1 Aerator	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
305A	2 Aerator	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
305A	3 Aerator	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
305A	4D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	1D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	2D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	3D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	Fuel Burning System Aux Burner												0.00000			
305A	1 Paint	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM10-PM10-PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM10-PM10-PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM10-PM10-PM2.5
<b>SOURCE 305A,309,311A</b>																
<b>CONTROL COLLECTOR: DO</b>																
305A	52 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	1D Feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	Pan Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	42D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	12 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	19 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	20 Elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	1D Oiler Screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	24K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*); SGI used uncontrolled
311A	1D Oiler*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM10-PM10-PM2.5	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM10-PM10-PM2.5	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM10-PM10-PM2.5
311A	1D Oiler Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	3D Transfer Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
311A	5 Kln	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control
311A	1D Transfer Bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	6D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	9D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	5D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	7D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
305A	8D Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
309	3 Kln	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Flash Drying with Fabric Filter Control

2022 Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff? SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff? SGI>DEP	Comment if Diff.
<b>SOURCE 308A</b>													
<b>CONTROL COLLECTOR: DO</b>													
308A	10D Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	8 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	17 Elevator	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	Waste Elevator												
308A	9K Conveyor	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Oiler*	0.00014	0.00140	diff	SGI> AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor and assumed PM10-PM2.5	0.00005	0.00140	diff	SGI> AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor and assumed PM10-PM2.5	0.00001	0.00014	diff	SGI> AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor and assumed PM10-PM2.5
308A	2D Transfer Bin	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Oiler Bin	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Oil Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2D Feeder	0.00300	0.00300			0.00110	0.00110			0.00017	0.00011	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
308A	2 Kiln	2.68	2.68000			1.46	1.46000			0.83	0.83000		AP-42 Table 11.19.4 for Flue Drying with Fabric Filter Control
308A	4 Kiln	2.68	2.68000			1.46	1.46000			0.83	0.83000		AP-42 Table 11.19.4 for Flue Drying with Fabric Filter Control
308A	Kiln Gas Burning												
<b>SOURCE 308A, 309, 311A, 302</b>													
<b>CONTROL COLLECTOR: FIS</b>													
309	6 Cooler	0.00050	0.00050			0.00050	0.00050			0.00050	0.00005	diff	PM10-PM2.5; SGI used PM2.5 PM10 ratio of 0.1
311A	5 Cooler	0.00050	0.00050			0.00050	0.00050			0.00050	0.00005	diff	PM10-PM2.5; SGI used PM2.5 PM10 ratio of 0.1
308A	1 Cooler	0.00050	0.00050			0.00050	0.00050			0.00050	0.00005	diff	PM10-PM2.5; SGI used PM2.5 PM10 ratio of 0.1
302	40 Screen	0.02500	0.02500			0.00870	0.00870			0.00131	0.00087	diff	PM2.5 PM10 ratio of 0.15 (SGI used 0.1)



2022 Point Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
213B	28K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	30K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	31K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	15K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	22K Elevator*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	38K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	37K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	52K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	86K Elevator*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	92K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	91K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	90K Conveyor*	0.00014	0.00300	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00110	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00001	0.00011	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	36K Screen*	0.00220	0.02500	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00074	0.000870	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled	0.00005	0.00087	diff	SGI>	corrected to AP-42 Table 11.19.2-2 controlled (*). SGI used uncontrolled
213B	Granules Loading*	0.00030	0.00030				0.00010	0.00010				0.000015	0.000010	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>Total Coloring Plant</b>																
<b>HEADLAP PLANT</b>																
<b>Crushing/screening</b>																
<b>SOURCE 515</b>																
<b>CONTROL COLLECTOR: DC</b>																
C051A																
515	C102 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
515	dryer	2.68	2.68000				1.46	1.46000				0.83	0.83000			AP-42 Table 11.19.4 for Fresh Drying with Fabric Filter Control
515	BE101 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
515	C103 Conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 520</b>																
<b>CONTROL COLLECTOR: DC</b>																
C051B																
520	SCR101 TD screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	CR101 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	B101 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BF101 feeder conv.	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BE102 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	B102 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BF102	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	BF103	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	CR102 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	CR103 crusher	0.00540	0.00540				0.00240	0.00240				0.00036	0.00024	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
520	C104 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 525 CONTROL COLLECTOR: DC</b>		C051C														
525	C105 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	SCR102 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	SCR103 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	SCR104 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	SCR105 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	C106 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	SCR 106 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	SCR 107 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	B103 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	B104 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	C108 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	BE103 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	B105 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	B106 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	C109 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	BE105	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	BE106	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	BE104 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
<b>OILING SYSTEM</b>																
525	surge bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
525	rotary oiler*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM<sub>10</sub>-PM<sub>2.5</sub>	0.00005	0.00140	diff	SGI>	AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used older PM10 factor, and assumed PM<sub>10</sub>-PM<sub>2.5</sub>	0.00001	0.00014	diff	SGI>	AP-42 Table 11.19.3.2 Screening (controlled); SGI used PM2.5 PM10 ratio of 0.1
525	screen*	0.00220	0.00220				0.00074	0.00074				0.00005	0.00007	diff	SGI>	AP-42 Table 11.19.3.2 Screening (controlled); SGI used PM2.5 PM10 ratio of 0.1
525	reject bin*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used PM2.5 PM10 ratio of 0.1
<b>* OILED PRODUCT</b>																
<b>WATER SPRAYS</b>																
<b>SOURCE 530 CONTROL COLLECTOR: DC</b>		C051D														
<b>SHIPPING TANKS</b>																
530	C110 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used PM2.5 PM10 ratio of 0.1
530	B110 bin*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used PM2.5 PM10 ratio of 0.1
530	B111 bin*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used PM2.5 PM10 ratio of 0.1
<b>Total Headlap Plant</b>																
<b>UNDERSIZE MATERIAL PRO Screening</b>																
<b>SOURCE 420 CONTROL COLLECTOR: T1</b>																
420	143 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	400 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	405 screen	0.02500	0.02500				0.00870	0.00870				0.00131	0.00087	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	916 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	917 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	918 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	919 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	920 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	925 conveyor	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	410 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	420 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	430 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	440 elevator	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420B	510 air classifier	0.02250	0.02250				0.01040	0.01040				0.00410	0.00104	diff		AP-42 Table 11.19.3.4 Classifiers (dry) with Fabric Filter Control; SGI used PM2.5 PM10 ratio of 0.1
<b>OILING SYSTEM</b>																
420	144 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	145 bin	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	425 feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	426 feeder	0.00300	0.00300				0.00110	0.00110				0.00017	0.00011	diff		PM2.5 PM10 ratio of 0.15 (SGI used 0.1)
420	187 screw conveyor*	0.00014	0.00140	diff	SGI>	AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); the origin of SGI's factor is unclear, and appears to be an error	0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3.2 Conveyor Transfer Point (controlled); SGI used PM2.5 PM10 ratio of 0.1



Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
420	410 screen* * OILED PRODUCT	0.00220	0.00220				0.00074	0.00074				0.00005	0.00007	diff	SGI>	AP-42 Table 11.19.3-2 Screening (controlled); SGI used PM2.5/PM10 ratio of 0.1
<b>SHIPPING TANKS</b>																
420	146 silo*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	147 silo*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	148 silo*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	921 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	922 conveyor	0.00300	0.00014	diff			0.00110	0.00005	diff			0.00017	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	923 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	924 conveyor*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	450 elevator*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
420	460 elevator*	0.00014	0.00014				0.00005	0.00005				0.00001	0.00000	diff		AP-42 Table 11.19.3-2 Conveyor Transfer Point (controlled); SGI used PM2.5/PM10 ratio of 0.1
<b>Total Undersize Material Proc</b>																
<b>Aggregate Plant Crushing/Conveying</b>																
<b>CONTROLLED WITH WATER</b>																
C120	METSO-Primary															
C300	Superior Patriot Secondary															
C300	Superior-Patriot Tertiary															
C1	Conveyor															
C2	Conveyor															
C3	Conveyor															
C4	Conveyor															
C5	Radial Stacker															
C6	Conveyor															
C7	Conveyor															
C8	Conveyor															
C9	Conveyor															
C10A	Conveyor															
C10B	Conveyor															
C11	Conveyor															
C12	Conveyor															
C13	Conveyor															
C14	Conveyor															
C15	Radial Stacker															
C16	Radial Stacker															
C17	Radial Stacker															
C18	Radial Stacker															
C19	Conveyor															
C20	Conveyor															
C21	Conveyor															
16	Emergency Generator															

2022 Open Air Sources

Source ID	Source Name	Pollution Control Unit	Control Eff.	Other Limits nts	Max Thru Tons/Hour	Op Hrs	Emission Factor Controlled			Uncontrolled Emissk			Suppression Controlled Emis			Emission			
							E.F. (TSP) lbs/ton	E.F. (PM-10) lbs/ton	E.F. (PM2.5) lbs/ton	PTe (TSP) ton/yr	PTe (PM10) ton/yr	PTe (PM2.5) ton/yr	PTe (TSP) ton/yr	PTe (PM10) ton/yr	PTe (PM2.5) ton/yr	Cont (TSP) ton/yr	Cont (PM10) ton/yr	Cont (PM2.5) ton/yr	
<b>QUARRY AND PRIMARY CRUSHING</b>																			
106	Blasting		fugitive	0%	500	3,978	0.0005 based on based on a 1997 test at NC stone crushing facility	0.0005 based on based on a 1997 test at NC stone crushing facility	0.0005 PM2.5 assumed equal to PM10	0.50	0.50	0.50				0.50	0.50	0.50	
107	Loading		fugitive	0%	500	3,978	0.0003 used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading, from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.0001 used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015 PM2.5/PM10 ratio of 0.15	0.30	0.10	0.01				0.30	0.10	0.01	
500	Hauling** ** Roadways are Watered		fugitive	75%	500	3,978	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS	185.38	48.19	4.82	46.345	12.048	1.2048	46.34	12.05	1.20	
<b>Sources: 201, 200B, 199, 202 CONTROLLED WITH WATER SPRAYS</b>																			
200B	Rock Stockpile		water spray		NSPS	500	3,978	0.0044 Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions	0.0021 Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions	0.0003 Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions	4.34	2.052	0.311	4.339	2.052	0.311	4.339	2.052	0.311
199	Fines Stockpile		water spray	0%	NSPS	300	3,978	0.0044 Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions	0.0021 Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions	0.0003 Emission factor derivation from AP-42 Section 13.2.4 and assumes typical conditions	2.60	1.231	0.186	2.603	1.231	0.186	2.603	1.231	0.186
199	Fines Loading		water spray		NSPS	300	3,978	0.0003 used TSP/PM10 ratio for "Conveyor Transfer Point" to estimate TSP for Truck Loading, from the PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.00010 used PM10 factor for Truck Loading from AP-42 Table 11.19.2-2.	0.000015 PM2.5/PM10 ratio of 0.15							0.179	0.060	0.009
199	Fines Dumping		water spray		NSPS	300	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.084	0.027	0.008
199	Syntron Feeder		water spray		NSPS	500	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.139	0.046	0.013
199	970 Conveyor		water spray		NSPS	500	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.139	0.046	0.013
199	Fines Conveyor HP		water spray		NSPS	300	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.084	0.027	0.008
201	100 ton Hopper		water spray		NSPS	500	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.139	0.046	0.013
201	Grizzly Feeder		water spray		NSPS	500	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.139	0.046	0.013
201	Fuller Jaw Crusher		water spray		NSPS	500	3,978	0.0012 AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.00054 AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.000100 AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)							1.193	0.537	0.099
201	96S Conveyor		water spray		NSPS	500	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.139	0.046	0.013
200B	6x12 Seco Screen		water spray		NSPS	500	3,978	0.0022 AP-42 Table 11.19.2-2 Screening (controlled)	0.00074 AP-42 Table 11.19.2-2 Screening (controlled)	0.00005 AP-42 Table 11.19.2-2 Screening (controlled)							2.188	0.736	0.050
200B	5 1/2 Cone Crusher		water spray		NSPS	500	3,978	0.0012 AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.00054 AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)	0.000100 AP-42 Table 11.19.2-2 Tertiary Crushing (controlled)							1.193	0.537	0.099
200B	971 Conveyor		water spray		NSPS	500	3,978	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000013 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.139	0.046	0.013
<b>INTERMEDIATE CRUSHING</b>																			
202	Feeder		water spray			300	5,202	0.00014 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.000046 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)	0.0000 AP-42 Table 11.19.2-2 Conveyor Transfer Point (controlled)							0.109	0.036	0.010
<b>SOURCE 216, 217 CONTROL COLLECTOR: DOUBLE PULSE KING M200 D04</b>																			
217	Fines Screw I 05177		fugitive	0%		24	5,202	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.187	0.069	0.010				0.187	0.069	0.010
217	Fines Screw DP 165		fugitive	0%		24	5,202	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.187	0.069	0.010				0.187	0.069	0.010
217	Fines Screw DP		fugitive	0%		24	5,202	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.187	0.069	0.010				0.187	0.069	0.010
<b>SOURCE 210, 213, 215A, 216 CONTROL COLLECTOR: JOHNSON MARCH A D10</b>																			
216	4A TCM Screw		fugitive	0%		20	1	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000				0.000	0.000	0.000
216	4B TCM Screw		fugitive	0%		20	1	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000				0.000	0.000	0.000
216	1 TCM Screw		fugitive	0%		20	1	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000				0.000	0.000	0.000
216	2 TCM Screw		fugitive	0%		20	1	0.003 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.0011 AP-42 Table 11.19.2-2 Conveyor Transfer Point	0.000165 PM2.5/PM10 ratio of 0.15	0.000	0.000	0.000				0.000	0.000	0.000



2022 Open Air Sources

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>QUARRY AND PRIMARY CRUSHING</b>																
106	Blasting	0.000500					0.0005000					0.0005000				
107	Loading	0.000300					0.0001000					0.0000150				
500	Hauling** ** Roadways are Watered	Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS					Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS					Per AP-42 Section 13.2.2, Unpaved Roads, SGI 2022 AMS				
<b>Sources: 201, 200B, 199, 202 CONTROLLED WITH WATER SPRAYS</b>																
200B	Rock Stockpile	0.004363	0.00436				0.0020634	0.0020634				0.0003125	0.0003125			
199	Fines Stockpile	0.004363	0.00436				0.0020634	0.0020634				0.0003125	0.0003125			
199	Fines Loading	0.000300	0.00030				0.0001000	0.0001000				0.0000150	0.0000100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
199	Fines Dumping	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
199	Syntron Feeder	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
199	970 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
199	Fines Conveyor HP	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
201	100 ton Hopper	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
201	Grizzly Feeder	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
201	Fuller Jaw Crusher	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
201	965 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
200B	6x12 Seco Screen	0.002200	0.0022				0.0007400	0.0007400				0.0000500	0.0000500			
200B	5 1/2 Cone Crusher	0.001200	0.0012				0.0005400	0.0009540	diff	SGI>	DEP used AP-42 Table 11.10.2.2 Tertiary Crushing (controlled); origin of SGI factor is unclear.	0.0001000	0.0000100	diff		DEP used AP-42 Table 11.10.2.2 Tertiary Crushing (controlled); origin of SGI factor is unclear.
200B	971 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>INTERMEDIATE CRUSHING</b>																
202	Feeder	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>SOURCE 216, 217 CONTROL COLLECTOR: DOUBLE PULSE KING M200 D04</b>																
217	Fines Screw 1 05177	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
217	Fines Screw DP 165	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
217	Fines Screw DP	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
<b>SOURCE 210, 213, 215A, 216 CONTROL COLLECTOR: JOHNSON MARCH A D10</b>																
216	4A TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
216	4B TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
216	1 TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)
216	2 TCM Screw	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0001100	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1)

Source ID	Source Name	DEP E.F. (TSP) lbs/ton	SGI E.F. (TSP) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM-10) lbs/ton	SGI E.F. (PM-10) lbs/ton	Diff?	SGI>DEP	Comment if Diff.	DEP E.F. (PM2.5) lbs/ton	SGI E.F. (PM2.5) lbs/ton	Diff?	SGI>DEP	Comment if Diff.
<b>SOURCE 216, 403</b>																
<b>CONTROL COLLECTOR: TORIT DAY "G"</b>																
	216 986 Outside Conv.	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>SOURCE 403</b>																
<b>CONTROL COLLECTOR: CARTERDAY "D" 72RJ48</b>																
	403 Fines Screw	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	403 Fines Screw	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>COLORING PLANT</b>																
<b>SOURCE 302, 317, 401B</b>																
<b>CONTROL COLLECTOR: 1D PANGBORN</b>																
	302 Outside Hopper	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000520	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
	302 5960 Conveyor	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000520	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
	302 #1 waste screw Conv	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000520	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
	216 #2 waste screw conv	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000000	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
	317 Binder Feeder	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000000	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
	317 Bulk Bagger Trans	0.003000	0.003				0.0011000	0.0011000				0.0001650	0.0000000	diff		PM2.5/PM10 ratio of 0.15 (SGI used 0.1); origin of SGI factor is unclear
<b>HEADLAP PLANT</b>																
<b>Crushing/screening</b>																
<b>SOURCE 515</b>																
<b>CONTROL COLLECTOR: DC 101</b>																
	515 Surge pile	0.004363	0.004363				0.0020634	0.0020634				0.0003125	0.0003125			
	515 C101 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	515 24x60 feeders	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>SOURCE 525</b>																
<b>CONTROL COLLECTOR: DC 103</b>																
	<b>WATER SPRAYS</b>															
	525 WS102 screw conv	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	525 WS101 screw conv	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	525 C107 conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	525 Waste surge	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
<b>Aggregate Plant</b>																
<b>Crushing/Conveying</b>																
<b>CONTROLLED WITH WATER SPRAYS</b>																
	C120 METSO-Primary	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
	C300 Superior Patriot Secondary	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
	C300 Superior-Patriot Tertiary	0.001200	0.0012				0.0005400	0.0005400				0.0001000	0.0001000			
	C1 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C2 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C3 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C4 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C5 Radial Stacker SPARE	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C6 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C7 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C8 Radial Stacker SPARE	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C9 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C10A Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C10B Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C11 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C12 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C13 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C14 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C15 Radial Stacker SPARE	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C16 Radial Stacker	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C17 Radial Stacker	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C18 Radial Stacker	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C19 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C20 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			
	C21 Conveyor	0.000140	0.00014				0.0000460	0.0000460				0.0000130	0.0000130			

DEP Assessment of Air Control Techniques, P.C. 10/17/23 Response to DEP's 10/4/23 Questions Concerning the Pennsylvania DEP AES Emission Inventory Date for Year 2022  
Specialty Granules Inc. Charmian Plant

Table 1 - Response Review Summary

#	DEP Question	Consultant Response	DEP Review
1	<p>The below emission factors were listed in the 2022 emission inventory calculation worksheets. Please provide an explanation for how each of these emission factors was developed.</p>	<p>[See Table 2.]</p>	<p>[See Table 2.]</p>
2	<p>In the 2022 emission inventory calculations worksheet, it was noted that varying capture efficiencies for control devices was reported. Please provide the criteria used to determine each capture efficiency for all controlled sources.</p>	<p>Air Control Techniques, P.C. assigned dust capture efficiencies ranging from 95% to 99.5% based on (1) the extent of enclosure of the process equipment, (2) the range of the prevailing negative static pressures in the process equipment, (3) the approximate size distributions of the material handled, (4) the extent of wetting or coatings of the material handled, and (5) the potential for fugitive leaks from components such as solids discharge valves or non-enclosed portions of conveyors.</p> <p>SGI's Charmian plant produces granules used for roofing shingles and construction aggregates. These materials have larger particle size distributions than in many mineral industry facilities. Accordingly, fugitive dust emissions from process equipment are lower than many other mineral industry facilities.</p> <p>Sources such as dryers and preheaters were assigned a capture efficiency of 99.5% based on the facts that these sources are entirely contained, and the process gas streams remain under negative pressure until the gas stream reaches the induced draft fan discharging into the stack. Some fugitive dust emissions are possible at solids discharge valves and at the entry point for process material entering the dryer or preheater. The 99.5% factor takes these possible fugitive dust leak sites into account.</p> <p>Sources such as bucket elevators and bins were assigned a capture efficiency of 99% based on the facts that the bucket elevators are inherently enclosed and are connected at the bottom loading point and the upper discharge point to the plant ventilation systems, which maintain a negative static pressure into each bucket elevator hood. Slight dust leaks are possible due to physical wear of the bucket elevator housing. The 99% capture efficiency takes those possible dust leaks into account.</p> <p>Sources such as screens and coolers have been assigned a capture efficiency of 98% based on the fact that most screens are enclosed and are connected at the feed end and/or the discharge end to the plant ventilation system that maintains a negative static pressure and that transports the gas stream to a fabric filter. Fugitive dust emissions are minimized by the ventilation system. The 98% capture efficiency takes into account slight dust leaks that occur at the process material entry point to the screen or cooler. The fugitive dust emissions from coolers are reduced by the cooler enclosure operating at negative static pressure. Also, the wetted product in coolers resists dust entrainment.</p> <p>Sources such as belt conveyors were assigned a capture efficiency of 95% based on the fact that the dominant fugitive dust emission location is the belt-to-belt transfer point, which is enclosed and connected to the plant ventilation system leading to a fabric filter. The conveyor transfer point operates under negative static pressure. Some slight emissions can occur as spillage off the side of the conveyor or as wind-entrained dust from the material on the belt. However, the conveyors at Charmain are primarily within buildings and are not vulnerable to ambient high wind related dust entrainment. The 95% capture efficiency takes into account the fugitive dust emissions from the conveyors.</p> <p>The fugitive dust control efficiencies of 95% to 99.5% provide a conservative estimate that is higher than the true emissions. Considering the material throughput rates of 50 to 250 tons per hour through many process units, capture efficiencies lower than the range of values used in the emission inventory would result in in-plant dust levels well beyond regulatory exposure concentrations limits. Lower capture efficiencies would also reduce the economic viability of the facility. The particulate matter that has been crushed, screened, conveyed, and otherwise handled is the product that the plant needs to sell.</p> <p>It should be noted that the capture efficiency estimates are based primarily on engineering judgement. Testing capture efficiency of large industrial mineral industry sources would be highly expensive and subject to substantial measurement error. Testing the capture efficiency of complex mineral industry sources often packed closely together with many process units is not practical.</p>	<p>After review of the process and provided response, DEP believes the capture efficiencies to be reasonable estimates.</p>

DEP Assessment of Air Control Techniques, P.C. 10/17/23 Response to DEP's 10/4/23 Questions Concerning the Pennsylvania DEP AES Emission Inventory Date for Year 2022  
Specialty Granules Inc. Charmian Plant

**Table 1 - Response Review Summary**

#	DEP Question	Consultant Response	DEP Review
3	<p>In the 2022 emission inventory emission calculation worksheets, it was noted that PM2.5 was estimated to be 1/10th of the PM-10 emissions. Please provide a reference as to their basis for the estimation.</p>	<p>The PM2.5/PM10 ratio has been the subject of considerable research since the early 1990s. In 1993, Air Control Techniques, P.C. conducted a series of PM10 emission tests in the stone crushing industry as part of an EPA and Stone Industry cooperative study to improve the emission factors in Section 11.19.2 of AP42 (factors now in Tables 11.19.2-2). These studies pre-dated the modification of Method 201A in December 2010 to include both PM10 and PM2.5 emissions. Accordingly, during these 1993 to 2004 emission factor development test programs, the PM2.5 fraction was estimated primarily by light and/or electron microscopy of filter samples. The EPA emission testing branch and emission inventory group representatives participating in each of these emission factor development tests initially proposed use of the PM2.5/PM10 ratios ranging from 0.10 to 0.15 and the eventually chose 0.10. EPA subsequently evaluated this issue further based on a variety of studies as indicated by the document titled, "Analysis of the Fine Fraction of Particulate Matter in Fugitive Dust." The final report prepared by the Midwest Research Institute was submitted to the Western Regional Air Partnership of the Western Governor's Association (October 2005). This document is available on the AP42 website in Section 11.13. Conclusions 4 and 5 of that report are reproduced below.</p> <p>"4. The test data from the current study support a PM2.5/PM10 ratio of 0.1 for typical fugitive dust sources. This ratio takes into account the fact that during AP-42 source tests more PM10 sample mass from uncontrolled dust sources is collected at plume core PM10 concentrations exceeding 5,000 µg/m3.</p> <p>5. The PM2.5/PM10 ratio of 0.1 is also supported by numerous other studies including the prior field study that used dichotomous samplers as reference devices. It is possible that a ratio as low as 0.05 (as was found in the prior field tests of unpaved roads) might be appropriate, but this would require extrapolation of the current test data to high PM10 concentrations. "</p> <p>Page iv of 'Analysis of the Fine Fraction of Particulate Matter in Fugitive Dust'</p> <p>Air Control Techniques, P.C. confirmed the EPA conclusions in our own tests of mineral industry sources.</p> <p>Furthermore, this is a logical PM2.5/PM10 ratio considering that mineral dust is not very friable and resists particle attrition by physical processes.</p> <p>For these reasons, I believe that the PM2.5/PM10 ratio of 0.1 is an appropriate and perhaps a moderately conservative ratio to use in the SGI emission calculations.</p>	<p>The study in question has been used by EPA in revising several fugitive dust sources in AP-42 Chapter 13.2. These sources are handled separately from emissions from stone crushing/processing equipment such as crushers, screens, conveyors, etc. The referenced document handles sources such as paved/unpaved roads, stockpile wind erosion, and material transfer to and from stockpiles. Nevertheless, DEP notes several state agencies have utilized the ratio of the Aerodynamic Particle Size Multiplier values (k) for PM10 (k=0.35) and PM2.5 (k=0.053) as tabulated in AP-42 Chapter 13.2.4 (Aggregate Handling and Storage Piles), corresponding to roughly a 0.15 PM2.5/PM10 ratio. Though the consultant's referenced study comes to the conclusion of using 0.1 as the ratio, it is also noted EPA's final revisions to AP-42 Chapter 13.2 subsections (which took into account the referenced study results) assigned a PM2.5/PM10 ratio for storage pile transfer of 0.15.</p> <p>It should be noted these are not exactly the same source types, however, without better information, agencies have employed use of the k ratios to estimate PM2.5 emissions from stone crushing, screening, and conveying where no AP-42 emission factor was available.</p> <p><b>Consequently, DEP believes it is reasonable to assign a PM2.5/PM10 ratio of 0.15 only where there is no AP-42 emission factor available for PM2.5.</b></p>

DEP Assessment of Air Control Techniques, P.C. 10/17/23 Response to DEP's 10/4/23 Questions Concerning the Pennsylvania DEP AES Emission Inventory Date for Year 2022  
Specialty Granules Inc. Charmian Plant

Table 2 - Review of Emission Factors (Question 1)

Affected Sources	Current Emission Factors			Consultant Reasoning	DEP Review
	(lbs/ton)				
	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>		
208 - Dryer 015 - Dryer #400 303 - 1D Preheater 304 - 2D Preheater 305A - 1 Aerator 305A - 2 Aerator 305 A - 3 Aerator 309 - 3 Kiln 308A - 2 Kiln 308A - 4 Kiln 311A - 5 Kiln 515 - Dryer	2.68	1.46	0.83	<p>The emission factors for the Source 208 Dryer and eleven other sources<sup>1</sup> listed by DEP included a value of 2.68 pounds per ton for total suspended particulate matter (TSP), 1.46 pounds per ton for PM<sub>10</sub>, and 0.83 pounds per ton for PM<sub>2.5</sub>. These emission factors were based on EPA AP42 Table 11.19.4 for Flash Drying with Fabric Filter Control (SCC3-05-038-35).</p> <p>I used these factors due to (1) the lack of emission test data for combustion sources and aerators, at SGI's Charmian Plant and (2) the general similarity of the AP42 combustion source and control system in the AP42 database. The primary difference between the AP42 source and the SGI sources is the size of the product handled. The EPA AP42 emission factor applies to a source that makes very fine mineral products. The SGI sources handle much larger particulate matter.</p> <p>The AP42 emission factors for the Flash Dryer/Fabric Filter source are controlled emissions as indicated by the footnote under AP42 Table 11.19.4. To convert this controlled factor of 0.0268 pounds per ton to the uncontrolled form entered in the SGI calculations, I multiplied each of the TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> factors by 100 based on an assumed 99% control efficiency in the fabric filter. This assumed control efficiency is slightly lower than the 99.5%, which is usually most appropriate for fabric filters in the mineral industries. The lower efficiency used in this emission factor calculation was chosen due to the increased potential for particle seepage through filter bags with the very finely pulverized material used in the source tested for the AP42 emission factors. This multiplication of the AP42 controlled factors to the SGI uncontrolled emission factors resulted in TSP emissions of 2.68 pounds per ton, PM<sub>10</sub> emissions of 1.46 pounds per ton, and PM<sub>2.5</sub> emissions of 0.83 pounds per ton.</p>	<p>The background documentation for the AP-42 chapter revealed control efficiencies were not tested for in developing the factor. AP-42 states the following regarding Pulverized Mineral Processing: "Collection efficiencies for fabric filter-controlled dry process equipment exceed 99.5%." Consequently, DEP does not believe it is reasonable to assume 99% control efficiency for those sources to back calculate an uncontrolled emission factor.</p> <p>Nevertheless, DEP believes the use of the Flash Dryer emission factor to be an overly conservative selection. Material in a flash dryer is pneumatically conveyed and exposed to hot air at high velocities, creating the opportunity for more emissions. This is not analogous to the rotary dryers/kilns in this process. After reviewing available emission factors, DEP notes the uncontrolled PM emission factor for a Sand Dryer (SCC 3-05-027-20) is 2.0 lbs/ton (AP-42 Table 11.19.1-1). AP-42 Chapter 11.19.1 covers Sand and Gravel Processing, of which roofing granules has historically been included under.</p> <p><b>Since the consultant's methodology resulted in higher factors, DEP accepts them as reasonably conservative.</b></p>
317 - Fines Loading 317 - Fines Air Slide 317 - Fines Tank 213B - Granules Bagger* 213B - Granules Loading* 199 Fines Loading	0.0003	0.0001	0.00001	<p>The emission factors used for Source 317 Loading and three other sources were 0.0003 pounds per ton for TSP, 0.0001 pounds per ton for PM<sub>10</sub>, and 0.00001 pounds per ton for PM<sub>2.5</sub>.</p> <p>The emission factors used in the SGI emission inventory calculations were based on engineering judgment along with the EPA AP42 emission factors in Table 11.19.2 for controlled conveyors (SCC 3-05-020-06) and truck loading (3-05-020-32). The AP42 emission factors concern sources with mineral material handling characteristics generally similar to the SGI fines loading, fines tank, and fines loading. The emission factors used for the Fines Loading (Source 317), Fines Tank (Source 317), and the Fines Loading (Source 199) have been adjusted slightly from AP42 factors to account for the site specific differences in the AP42 sources and SGI sources.</p> <p>The SGI air slide (Source 317) is a long linear, enclosed, and sloped conveyor with air injection to fluidize the material. At the terminating end of the airslide, the material discharges to other process equipment in much the same manner as other conveyors. Accordingly, it is appropriate to include this source along with the three other fines transfer operations with these assigned emission factors.</p>	<p>The consultant indicated engineering judgement was used to develop the TSP and PM<sub>2.5</sub> values but does not elaborate. It appears these factors were developed by SGI's consultant applying the TSP/PM<sub>10</sub> ratio for "Conveyor Transfer Point" (SCC 3-05-020-06) to estimate TSP for Truck Loading, from the PM<sub>10</sub> factor for Truck Loading from AP-42 Table 11.19.2-2. In other words, the TSP/PM<sub>10</sub> scaling factor of 0.003/0.0011 (=2.7272...) was applied to 0.0001 to arrive at a rounded 0.0003 pounds per ton of TSP factor for Truck Loading. The PM<sub>2.5</sub> from Truck Loading was then estimated at 0.10 times the PM<sub>10</sub> factor, as described above. The AP-42 chapter details how it arrived at Total PM emission factors by extrapolating PM<sub>10</sub> and PM<sub>2.5</sub> stack test data. The figures charting the extrapolation lines are available in the chapter. DEP believes the use of the "Conveyor Transfer Point" emission factors to extrapolate the TSP factor for these sources is reasonable.</p> <p>It appears to DEP the PM<sub>2.5</sub> value follows the general 0.10 PM<sub>2.5</sub>/PM<sub>10</sub> ratio as many other emission factors at the site. DEP believes a ratio of 0.15 to be more appropriate.</p> <p><b>Factors Used by DEP:</b>  <b>- TSP: 0.0003 lbs/ton</b>  <b>- PM<sub>10</sub>: 0.0001 lbs/ton</b>  <b>- PM<sub>2.5</sub>: 0.000015 lbs/ton</b></p>



Table 2 - Review of Emission Factors (Question 1)

Effectuated Sources	Current Emission Factors			Consultant Reasoning	DEP Review
	(lbs/ton)				
	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>		
401B - Oiler G-11* 305A - 1 Paint 308A - 2D Oiler* 311A - 1D Oiler* 525 - Rotary Oiler*	0.0014	0.0014	0.00014	<p>The emission factor used for oilers, paint mixers, and one conveyor<sup>3</sup> were 0.0014 pounds per ton for TSP, PM<sub>10</sub>, and PM<sub>2.5</sub>. These factors were used for sources 401B, 305A, 311A, 525, and 420-187 Screw Conveyor.</p> <p>These factors have been used in SGI emission inventories since at least the FY2014 report—four years before Air Control Techniques, P.C. begin assisting SGI with emission inventory preparation. Accordingly, I don't have any detailed information concerning the origin of these specific factors. The archived 1995 edition of AP42 Section 11.19, Table 11.19.2-2 (available under the "Historical" tab on EPA's AP42 website) lists a factor of 0.0014 pounds PM<sub>10</sub> per ton of material for uncontrolled conveyors. The historical AP42 Table 11.19.2-2 does not include any factors for TSP and does not include PM<sub>2.5</sub> emissions. I believe that this 1995-based factor has been used for TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions in preparing earlier emission inventories.</p> <p>The emissions of particulate matter from these sources are extremely small considering that the organic coating applied to the granule particles is similar to an enhanced form of wet suppression. I understand that the purpose of the coating is to prevent particle fragmentation both during material processing at SGI and during use as roofing granules. The emission factor of 0.0014 pounds of TSP per ton appears to be generally consistent with the presently applicable PM<sub>10</sub> emission factor of 0.0011 pounds per ton of material for uncontrolled conveyors (SCC 3-05-020-06). Accordingly, I have continued to use this 1995-based factor even though I believe that the emission factor-based TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> calculated emissions are higher than the true emissions for all three categories of particulate matter.</p>	<p>DEP concurs with the consultant's conclusion that this emission factor appears to be incorrectly derived from AP-42 5th Edition (1995), which only includes a PM<sub>10</sub> emission factor. DEP further concurs the oil coating applied to the granules is reasonably analogous to wet suppression for the purposes of inhibiting dust generation.</p> <p><b>Consequently, DEP believes the use of the current AP-42 Table 11.19.2-2 emission factor for "Conveyor Transfer Point (controlled)" (SCC 3-05-020-06) to be a more reasonable estimate of PM emissions generated (prior to baghouse control) from these sources. Factors Used by DEP:</b></p> <p>- TSP: 0.00014 lbs/ton - PM<sub>10</sub>: 0.000046 lbs/ton - PM<sub>2.5</sub>: 0.000013 lbs/ton</p>
305A - 1 Paint Mixer 305A - 2 Paint Mixer 305A - 3 Paint Mixer 308A - 1 Cooler 309 - 6 Cooler 311A - 5 Cooler	0.0005	0.0005	0.00005	<p>The emission factors used for paint mixers (Sources 305A) and coolers (Sources 309, 311A, and 308A) were 0.0005 pounds per ton for both TSP and PM<sub>10</sub>, and 0.00005 pounds per ton for PM<sub>2.5</sub>.</p> <p>These factors have been used in SGI emission inventories for TSP and PM<sub>10</sub> since at least the FY2014 inventory. I don't have any detailed information concerning the origin of these specific factors. I continued to use these factors because they appear to be generally reasonable and conservative.</p> <p>All four of these sources involve either liquid contact with large granules or water spray cooling of large granules. Accordingly, I expect the dust emissions to be small. The TSP and PM<sub>10</sub> emissions are similar to dust emissions from wet suppression controlled conveyors listed in AP42 Table 11.19.2-2. The factor of 10 lower emissions of PM<sub>2.5</sub> particulate matter as compared to TSP and PM<sub>10</sub> particulate matter are consistent with PM<sub>10</sub>/PM<sub>2.5</sub> ratios for mineral industry processes discussed in a later section of this letter.</p>	<p>DEP concurs with SGI's logic that because all four of these sources involve either liquid contact with large granules or water spray cooling of large granules, that therefore the dust emissions are expected to be small. The PM<sub>10</sub> factor used is about 10x that listed for dust emissions from wet suppression controlled conveyors listed in AP42 Table 11.19.2-2, which appears to be conservative. Setting the TSP and PM<sub>2.5</sub> factors equal to the PM<sub>10</sub> factor would also appear to likely overestimate those emissions. DEP therefore concludes that SGI's chosen factors are a reasonable over-estimate, except that DEP elects to assume that TSP=PM<sub>10</sub>=PM<sub>2.5</sub>.</p> <p><b>Factors used by DEP: TSP/PM<sub>10</sub>/PM<sub>2.5</sub>: 0.0005 lbs/ton.</b></p>
420 - 187 Screw Conve	0.00014	0.000046	0.000013	<p>The 187 Screw Conveyor in Source 420 has emission factors of 0.0014 pounds per ton for TSP, 0.0 pounds per ton for PM<sub>10</sub>, and 0.0000046 pounds per ton for PM<sub>2.5</sub>. The PM<sub>10</sub> and PM<sub>2.5</sub> emission factors are clearly incorrect.</p> <p>I believe that the correct PM<sub>10</sub> emission factor should have been 0.000046 pounds per ton indicated in the FY2014 SGI submittal and based on AP42 Section 11.19.2 for a controlled conveyor. The appropriate PM<sub>2.5</sub> emission factor should have been 0.000013 pounds per ton. The TSP emission factor for the 187-Screw Conveyor should have been equal to the PM<sub>10</sub> factor of 0.000046 pounds per ton. The incorrect factors are due to my error. Use of the correct PM<sub>10</sub> emission factor results in calculated plant PM<sub>10</sub> emissions of 0.01 tons per year higher than the reported value of 61.36 tons per year.</p>	<p>DEP concurs the use of the AP-42 Table 11.19.2-2 emission factors "Conveyor Transfer Point (controlled)" (SCC 3-05-020-06) is reasonable in this case. However, DEP disagrees that TSP should be equal to PM<sub>10</sub>. If the basis for emissions estimation is AP-42, DEP believes the AP-42 emission factors for each pollutant should be used.</p> <p><b>Consequently, DEP believes the use of the current AP-42 Table 11.19.2-2 emission factor for "Conveyor Transfer Point (controlled)" (SCC 3-05-020-06) to be a reasonable estimate of PM emissions generated (prior to baghouse control) from these sources. Factors Used by DEP:</b></p> <p>- TSP: 0.00014 lbs/ton - PM<sub>10</sub>: 0.000046 lbs/ton - PM<sub>2.5</sub>: 0.000013 lbs/ton</p>

DEP Assessment of Air Control Techniques, P.C. 10/17/23 Response to DEP's 10/4/23 Questions Concerning the Pennsylvania DEP AES Emission Inventory Date for Year 2022  
Specialty Granules Inc. Charmian Plant

Table 2 - Review of Emission Factors (Question 1)

Affected Sources	Current Emission Factors			Consultant Reasoning	DEP Review
	(lbs/ton)				
	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>		
106 - Blasting	0.0005	0.0005	0.0005	<p>The emission factors used for blasting (Source 106) are 0.0005 pounds per ton for both TSP and PM10 and 0.00005 pounds per ton for PM2.5.</p> <p>This is based on a 1997 test that I conducted at a stone crushing facility in North Carolina. This was an especially difficult test to conduct due to the need to place the PM10 ambient air monitor just outside the blast restricted area specified by MSHA and the plant, the need to have an elevated area near the blast site to place a PM10 ambient monitor, and the need for the plume to move in the anticipated wind direction during the short period of plume transport over the sensor.</p> <p>The second-by-second PM10 data were integrated over the entire period of plume contact with the sampler. Photographs were used to calculate the volume of the plume. Based on these data, the calculated PM10 emission factor was 0.0002 pounds PM10 per ton of stone blasted. I have multiplied this calculated value by a factor of 2.5 to address (1) the possible differences in the stone friability at SGI versus the plant tested, and (2) the inherent uncertainty of this difficult measurement. The resulting emission factor for PM10 is conservative.</p> <p>Air Control Techniques, P.C. used the same factor for TSP emissions due to the fact that no particles larger than 10 micrometers (aerodynamic) could remain airborne sufficiently long to exit the quarry blast site and reach the PM10 continuous monitor.</p> <p>I have used a PM2.5/PM10 ratio of 0.1 to account for the frequently observed relationship between PM2.5 and PM10 emissions in mineral industry fugitive dust studies.</p>	<p>The emissions inventory lists the TSP/PM10/PM2.5 = 0.0005 lbs/ton. DEP reviewed AP-42 and EPA methodologies for calculating blasting emissions, including the supporting background documents. The only factors present for surface blasting are for coal mining operations and the documents indicate these may not be suitable for stone quarries where smaller blast areas are generally used. In EPA's "2020 National Emissions Inventory Technical Support Document: Industrial Processes – Mining and Quarrying," emission factors were outlined for metallic ore mining, non-metallic ore mining, and coal mining. Each subcategory uses western surface coal mining emission factors as the basis for blasting emissions. The document indicates a blasting emission factor for PM10 of 0.00005 lb/ton. In conjunction with stated PM10/TSP ration of 0.4, and PM10/PM2.5 ratio of 0.125, the blasting emission factors work out to be:</p> <ul style="list-style-type: none"> <li>- TSP: 0.000125 lbs/ton</li> <li>- PM10: 0.00005 lbs/ton</li> <li>- PM2.5: 0.00000625 lbs/ton</li> </ul> <p><b>Considering the background document information and EPA-utilized emission factors being a less conservative estimate of blasting emissions, DEP believes SGI's current emission factors to be a reasonable and conservative estimate.</b></p>
420B - 510 Air Classifier	0.0225	0.0104	0.00104	[Not Addressed]	<p>TSP and PM10 emission factors are from AP-42 Table 11.19.2-4 for "Classifiers (Dry) with Fabric Filter Control" (SCC 3-05-038-12). The consultant used a 0.10 PM2.5/PM10 ratio for the PM2.5 factor, despite the existence of a PM2.5 in AP-42. DEP believes it is appropriate to use the AP-42 factors when available, and so has used a PM2.5 factor for this source of 0.0041 lbs/ton.</p>
107 - Loading	0.0001	0.0001	0.00001	[Not Addressed]	<p>Per the discussion above regarding Sources 317, 213B and 199, DEP has assigned this loading operation the same emission factors as detailed above for those sources.</p> <p><b>Factors used by DEP:</b></p> <ul style="list-style-type: none"> <li>- TSP: 0.0003 lbs/ton</li> <li>- PM10: 0.0001 lbs/ton</li> <li>- PM2.5 0.000015 lbs/ton</li> </ul>

## Kissinger, Christopher

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**From:** Bubbenmoyer, David  
**Sent:** Wednesday, October 18, 2023 1:59 PM  
**To:** Weaver, William (DEP)  
**Cc:** Bianca, Tom; Matty, Kelley; Kissinger, Christopher  
**Subject:** FW: [External] Re: FW: SGI PM emissions  
**Attachments:** 2662 SGI Charmian Plant Emission Inventory questions, Oct. 17, 2023.pdf

Here is the response from SGI. Please let me know if you need anything else.

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**From:** Matthew Watson <matthew.watson@specialtygranules.com>  
**Sent:** Wednesday, October 18, 2023 12:56 PM  
**To:** Bubbenmoyer, David <dbubbenmoy@pa.gov>  
**Cc:** Justin Bushneck <justin.bushneck@specialtygranules.com>; Matty, Kelley <kmatty@pa.gov>; Lori Dayton <lori.dayton@specialtygranules.com>  
**Subject:** [External] Re: FW: SGI PM emissions

**ATTENTION:** This email message is from an external sender. Do not open links or attachments from unknown senders. To report suspicious email, use the [Report Phishing button in Outlook](#).

Good afternoon,

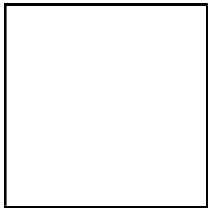
Please find the attached letter in response to the questions from your Wednesday October 4 email. If you have further questions please feel free to contact me.

Thank you,

**~Matt**

*Matthew R. Watson*

Senior Environmental Specialist



**Charmian Plant**

Blue Ridge Summit, PA

**Direct:** (717) 794-3303

**Cell:** (717) 729-5028

**Fax:** (717) 794-5248

On Wed, Oct 4, 2023 at 7:22 AM Bubbenmoyer, David <[dbubbenmoy@pa.gov](mailto:dbubbenmoy@pa.gov)> wrote:

Good morning Mr. Watson and Mr. Bushneck,

I have been asked to gather the following information about Specialty Granules' emission inventory. Please confirm receipt of this email and provide the requested information within 14days of the date of this email (by 10/18/23).

1] The below emission factors were listed in the 2022 emission inventory emission calculation worksheets. Please provide an explanation for how each emission factor below was developed.

ID	Name	(TSP)	(PM-10)	(PM2.5)
		lbs/ton	lbs/ton	lbs/ton
208	Dryer	2.6800	1.4600	0.83000
015	Dryer #400	2.680	1.460	0.830
303	1D Preheater	2.680	1.460	0.830
304	2D Preheater	2.680	1.460	0.830
317	Fines Loading	0.0003	0.0001	0.00001
317	Fines air slide	0.0003	0.0001	0.00001
317	Fines Tank	0.0003	0.0001	0.00001
401B	Oiler G-11*	0.0014	0.0014	0.00014
305A	1 Paint Mixer	0.0005	0.0005	0.00005
305A	2 Paint Mixer	0.0005	0.0005	0.00005
305A	3 Paint Mixer	0.0005	0.0005	0.00005
305A	1 Aerator	2.680	1.460	0.830
305A	2 Aerator	2.680	1.460	0.830
305A	3 Aerator	2.680	1.460	0.830
305A	1 Paint	0.0014	0.0014	0.00014
311A	1D Oiler*	0.0014	0.0014	0.00014
311A	5 Kiln	2.6800	1.4600	0.83000
309	3 Kiln	2.680	1.460	0.830
308A	2D Oiler*	0.0014	0.0014	0.00014
308A	2 Kiln	2.680	1.460	0.830
308A	4 Kiln	2.680	1.460	0.830
309	6 Cooler	0.00050	0.00050	0.000050
311A	5 Cooler	0.00050	0.00050	0.000050
308A	1 Cooler	0.00050	0.00050	0.000050
213B	Granules Bagger*	0.0003	0.0001	0.00001
213B	Granules Loading*	0.0003	0.0001	0.00001
515	dryer	2.680	1.460	0.830
525	rotary oiler*	0.0014	0.0014	0.00014
420B	510 air classifier	0.0225	0.0104	0.00104
420	187 screw conveyor*	0.0014	0.0000	0.0000046
106	Blasting	0.0005	0.0005	0.0005
107	Loading	0.0001	0.0001	0.00001
199	Fines Loading	0.0003	0.0001	0.00001

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2] In the 2022 emission inventory emission calculation worksheets, it was noted that varying capture efficiencies for control devices was reported. Please provide the criteria used to determine each capture efficiency for all controlled sources.

3] In the 2022 emission inventory emission calculation worksheets, it was noted that PM2.5 was estimated to be 1/10<sup>th</sup> of the PM-10 emissions. Please provide a reference as to their basis for the estimation.

**David Bubbenmoyer** | Air Quality District Supervisor  
Department of Environmental Protection  
Southcentral Regional Office  
909 Elmerton Avenue| Harrisburg, PA 17110-8200  
Phone: 717.705.4886 | Cell: 717.982.3063 |Fax: 717.705.4830  
[www.depweb.state.pa.us](http://www.depweb.state.pa.us)

**The 24-hour toll free Emergency Response number for SCRO is 1-800-541-2050.**

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301 East Durham Road  
Cary, North Carolina 27513

Office (919) 460-7811  
Fax (919) 460-7897

Sent via email: matthew.watson@specialtygranules.com

October 17, 2023

Mr. Matt Watson  
Specialty Granules Inc.  
Old Waynesboro Road  
Blue Ridge Summit, Pennsylvania

Re: Response to Questions Concerning the Pennsylvania DEP AES Emission Inventory  
Data for Year 2022, Specialty Granules Inc. Charmian Plant  
Air Control Techniques, P.C. file 2662

Matt,

I have prepared the following responses to the three questions raised by the Pennsylvania DEP concerning the FY2022 air emission inventory. I understand that PA DEP has requested this information by Wednesday, October 18.

**DEP Question 1. The below emission factors were listed in the 2022 emission inventory calculation worksheets. Please provide an explanation for how each emission factor was developed.** (List of 33 emission factors listed by DEP is included as an Attachment to this letter.)

**Response to DEP Question 1, Combustion and Combustion-Related Sources**

The emission factors for the Source 208 Dryer and eleven other sources<sup>1</sup> listed by DEP included a value of 2.68 pounds per ton for total suspended particulate matter (TSP), 1.46 pounds per ton for PM10, and 0.83 pounds per ton for PM2.5. These emission factors were based on EPA AP42 Table 11.19.4 for Flash Drying with Fabric Filter Control (SCC3-05-038-35).

I used these factors due to (1) the lack of emission test data for combustion sources and aerators, at SGI's Charmian Plant and (2) the general similarity of the AP42 combustion source and control system in the AP42 database. The primary difference between the AP42 source and the SGI sources is the size of the product handled. The EPA AP42 emission factor applies to a

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<sup>1</sup> The twelve SGI sources included (1) 208 Dryer, (2) 015 Dryer #400, (3) 303 1D Preheater, (4) 2D Preheater, (5) 1 Aerator, (6) 2 Aerator, (7) 3 Aerator, (8) 311A 5 Kiln, (9) 309 3 Kiln, (10) 308A 2 Kiln, (11) 308A 2 Kiln, (12) 515 Dryer

source that makes very fine mineral products. The SGI sources handle much larger particulate matter.

The AP42 emission factors for the Flash Dryer/Fabric Filter source are controlled emissions as indicated by the footnote under AP42 Table 11.19.4. To convert this controlled factor of 0.0268 pounds per ton to the uncontrolled form entered in the SGI calculations, I multiplied each of the TSP, PM10, and PM2.5 factors by 100 based on an assumed 99% control efficiency in the fabric filter. This assumed control efficiency is slightly lower than the 99.5%, which is usually most appropriate for fabric filters in the mineral industries. The lower efficiency used in this emission factor calculation was chosen due to the increased potential for particle seepage through filter bags with the very finely pulverized material used in the source tested for the AP42 emission factors. This multiplication of the AP42 controlled factors to the SGI uncontrolled emission factors resulted in TSP emissions of 2.68 pounds per ton, PM10 emissions of 1.46 pounds per ton, and PM2.5 emissions of 0.83 pounds per ton.

### **Response to DEP Question 1, Material Loading Sources**

The emission factors used for Source 317 Loading and three other sources<sup>2</sup> were 0.0003 pounds per ton for TSP, 0.0001 pounds per ton for PM10, and 0.00001 pounds per ton for PM2.5.

The emission factors used in the SGI emission inventory calculations were based on engineering judgment along with the EPA AP42 emission factors in Table 11.19.2 for controlled conveyors (SCC 3-05-020-06) and truck loading (3-05-020-32). The AP42 emission factors concern sources with mineral material handling characteristics generally similar to the SGI fines loading, fines tank, and fines loading. The emission factors used for the Fines Loading (Source 317), Fines Tank (Source 317), and the Fines Loading (Source 199) have been adjusted slightly from AP42 factors to account for the site specific differences in the AP42 sources and SGI sources.

The SGI air slide (Source 317) is a long linear, enclosed, and sloped conveyor with air injection to fluidize the material. At the terminating end of the airslide, the material discharges to other process equipment in much the same manner as other conveyors. Accordingly, it is appropriate to include this source along with the three other fines transfer operations with these assigned emission factors.

### **Response to DEP Question 1, Oilers, Paint Mixers, and One Conveyor**

The emission factor used for oilers, paint mixers, and one conveyor<sup>3</sup> were 0.0014 pounds per ton for TSP, PM10, and PM2.5. These factors were used for sources 401B, 305A, 311A, 525, and 420-187 Screw Conveyor.

These factors have been used in SGI emission inventories since at least the FY2014 report—four years before Air Control Techniques, P.C. began assisting SGI with emission inventory preparation. Accordingly, I don't have any detailed information concerning the origin of these

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<sup>2</sup> The four sources included (1) 317 Fines Loading, (2) 317 Fines Air Slide (3) 317 Fines Tank, and (4) Fines Loading.

<sup>3</sup> The one conveyor is the Source 420, 187 Screw Conveyor. The set of emission factors for this source is also discussed in a separate comment later in this letter.

specific factors. The archived 1995 edition of AP42 Section 11.19, Table 11.19.2-2 (available under the “Historical” tab on EPA’s AP42 website) lists a factor of 0.0014 pounds PM10 per ton of material for uncontrolled conveyors. The historical AP42 Table 11.19.2-2 does not include any factors for TSP and does not include PM2.5 emissions. I believe that this 1995-based factor has been used for TSP, PM10, and PM2.5 emissions in preparing earlier emission inventories.

The emissions of particulate matter from these sources are extremely small considering that the organic coating applied to the granule particles is similar to an enhanced form of wet suppression. I understand that the purpose of the coating is to prevent particle fragmentation both during material processing at SGI and during use as roofing granules. The emission factor of 0.0014 pounds of TSP per ton appears to be generally consistent with the presently applicable PM10 emission factor of 0.0011 pounds per ton of material for uncontrolled conveyors (SCC 3-05-020-06). Accordingly, I have continued to use this 1995-based factor even though I believe that the emission factor-based TSP, PM10, and PM2.5 calculated emissions are higher than the true emissions for all three categories of particulate matter.

### **Response to DEP Question 1, Paint Mixers and Coolers**

The emission factors used for paint mixers (Sources 305A) and coolers (Sources 309, 311A, and 308A) were 0.0005 pounds per ton for both TSP and PM10, and 0.00005 pounds per ton for PM2.5.

These factors have been used in SGI emission inventories for TSP and PM10 since at least the FY2014 inventory. I don’t have any detailed information concerning the origin of these specific factors. I continued to use these factors because they appear to be generally reasonable and conservative.

All four of these sources involve either liquid contact with large granules or water spray cooling of large granules. Accordingly, I expect the dust emissions to be small. The TSP and PM10 emissions are similar to dust emissions from wet suppression controlled conveyors listed in AP42 Table 11.19.2-2. The factor of 10 lower emissions of PM2.5 particulate matter as compared to TSP and PM10 particulate matter are consistent with PM10/PM2.5 ratios for mineral industry processes discussed in a later section of this letter.

### **Response to DEP Question 1, 187 Screw Conveyor**

The 187 Screw Conveyor in Source 420 has emission factors of 0.0014 pounds per ton for TSP, 0.0 pounds per ton for PM10, and 0.0000046 pounds per ton for PM2.5. The PM10 and PM2.5 emission factors are clearly incorrect.

I believe that the correct PM10 emission factor should have been 0.000046 pounds per ton indicated in the FY2014 SGI submittal and based on AP42 Section 11.19.2 for a controlled conveyor. The appropriate PM2.5 emission factor should have been 0.000013 pounds per ton. The TSP emission factor for the 187-Screw Conveyor should have been equal to the PM10 factor of 0.000046 pounds per ton. The incorrect factors are due to my error. Use of the correct PM10 emission factor results in calculated plant PM10 emissions of 0.01 tons per year higher than the reported value of 61.36 tons per year.



## **Response to DEP Question 1, Blasting**

The emission factors used for blasting (Source 106) are 0.0005 pounds per ton for both TSP and PM10 and 0.00005 pounds per ton for PM2.5.

This is based on a 1997 test that I conducted at a stone crushing facility in North Carolina. This was an especially difficult test to conduct due to the need to place the PM10 ambient air monitor just outside the blast restricted area specified by MSHA and the plant, the need to have an elevated area near the blast site to place a PM10 ambient monitor, and the need for the plume to move in the anticipated wind direction during the short period of plume transport over the sensor.

The second-by-second PM10 data were integrated over the entire period of plume contact with the sampler. Photographs were used to calculate the volume of the plume. Based on these data, the calculated PM10 emission factor was 0.0002 pounds PM10 per ton of stone blasted. I have multiplied this calculated value by a factor of 2.5 to address (1) the possible differences in the stone friability at SGI versus the plant tested, and (2) the inherent uncertainty of this difficult measurement. The resulting emission factor for PM10 is conservative.

Air Control Techniques, P.C. used the same factor for TSP emissions due to the fact that no particles larger than 10 micrometers (aerodynamic) could remain airborne sufficiently long to exit the quarry blast site and reach the PM10 continuous monitor.

I have used a PM2.5/PM10 ratio of 0.1 to account for the frequently observed relationship between PM2.5 and PM10 emissions in mineral industry fugitive dust studies.

## **DEP Question 2. In the 2022 emission inventory calculations worksheet, it was noted that varying capture efficiencies for control devices was reported. Please provide the criteria used to determine each capture efficiency for all controlled sources.**

Air Control Techniques, P.C. assigned dust capture efficiencies ranging from 95% to 99.5% based on (1) the extent of enclosure of the process equipment, (2) the range of the prevailing negative static pressures in the process equipment, (3) the approximate size distributions of the material handled, (4) the extent of wetting or coatings of the material handled, and (5) the potential for fugitive leaks from components such as solids discharge valves or non-enclosed portions of conveyors.

SGI's Charmian plant produces granules used for roofing shingles and construction aggregates. These materials have larger particle size distributions than in many mineral industry facilities. Accordingly, fugitive dust emissions from process equipment are lower than many other mineral industry facilities.

Sources such as dryers and preheaters were assigned a capture efficiency of 99.5% based on the facts that these sources are entirely contained, and the process gas streams remain under negative pressure until the gas stream reaches the induced draft fan discharging into the stack. Some fugitive dust emissions are possible at solids discharge valves and at the entry point for process

material entering the dryer or preheater. The 99.5% factor takes these possible fugitive dust leak sites into account.

Sources such as bucket elevators and bins were assigned a capture efficiency of 99% based on the facts that the bucket elevators are inherently enclosed and are connected at the bottom loading point and the upper discharge point to the plant ventilation systems, which maintain a negative static pressure into each bucket elevator hood. Slight dust leaks are possible due to physical wear of the bucket elevator housing. The 99% capture efficiency takes those possible dust leaks into account.

Sources such as screens and coolers have been assigned a capture efficiency of 98% based on the fact that most screens are enclosed and are connected at the feed end and/or the discharge end to the plant ventilation system that maintains a negative static pressure and that transports the gas stream to a fabric filter. Fugitive dust emissions are minimized by the ventilation system. The 98% capture efficiency takes into account slight dust leaks that occur at the process material entry point to the screen or cooler. The fugitive dust emissions from coolers are reduced by the cooler enclosure operating at negative static pressure. Also, the wetted product in coolers resists dust entrainment.

Sources such as belt conveyors were assigned a capture efficiency of 95% based on the fact that the dominant fugitive dust emission location is the belt-to-belt transfer point, which is enclosed and connected to the plant ventilation system leading to a fabric filter. The conveyor transfer point operates under negative static pressure. Some slight emissions can occur as spillage off the side of the conveyor or as wind-entrained dust from the material on the belt. However, the conveyors at Charmain are primarily within buildings and are not vulnerable to ambient high wind related dust entrainment. The 95% capture efficiency takes into account the fugitive dust emissions from the conveyors.

The fugitive dust control efficiencies of 95% to 99.5% provide a conservative estimate that is higher than the true emissions. Considering the material throughput rates of 50 to 250 tons per hour through many process units, capture efficiencies lower than the range of values used in the emission inventory would result in in-plant dust levels well beyond regulatory exposure concentrations limits. Lower capture efficiencies would also reduce the economic viability of the facility. The particulate matter that has been crushed, screened, conveyed, and otherwise handled is the product that the plant needs to sell.

It should be noted that the capture efficiency estimates are based primarily on engineering judgement. Testing capture efficiency of large industrial mineral industry sources would be highly expensive and subject to substantial measurement error. Testing the capture efficiency of complex mineral industry sources often packed closely together with many process units is not practical.

**DEP Question 3. In the 2022 emission inventory calculation worksheets, it was noted that PM<sub>2.5</sub> was estimated to 1/10<sup>th</sup> of the PM-10 emissions. Please provide a reference to their basis for this estimation.**

The PM<sub>2.5</sub>/PM<sub>10</sub> ratio has been the subject of considerable research since the early 1990s. In 1993, Air Control Techniques, P.C. conducted a series of PM<sub>10</sub> emission tests in the stone crushing industry as part of an EPA and Stone Industry cooperative study to improve the emission factors in Section 11.19.2 of AP42 (factors now in Tables 11.19.2-2). These studies pre-dated the modification of Method 201A in December 2010 to include both PM<sub>10</sub> and PM<sub>2.5</sub> emissions. Accordingly, during these 1993 to 2004 emission factor development test programs, the PM<sub>2.5</sub> fraction was estimated primarily by light and/or electron microscopy of filter samples. The EPA emission testing branch and emission inventory group representatives participating in each of these emission factor development tests initially proposed use of the PM<sub>2.5</sub>/PM<sub>10</sub> ratios ranging from 0.10 to 0.15 and the eventually chose 0.10. EPA subsequently evaluated this issue further based on a variety of studies as indicated by the document titled, "*Analysis of the Fine Fraction of Particulate Matter in Fugitive Dust.*" The final report prepared by the Midwest Research Institute was submitted to the Western Regional Air Partnership of the Western Governor's Association (October 2005). This document is available on the AP42 website in Section 11.13. Conclusions 4 and 5 of that report are reproduced below.

"4. The test data from the current study support a PM<sub>2.5</sub>/PM<sub>10</sub> ratio of 0.1 for typical fugitive dust sources. This ratio takes into account the fact that during AP-42 source tests more PM<sub>10</sub> sample mass from uncontrolled dust sources is collected at plume core PM<sub>10</sub> concentrations exceeding 5,000 µg/m<sup>3</sup>.

5. The PM<sub>2.5</sub>/PM<sub>10</sub> ratio of 0.1 is also supported by numerous other studies including the prior field study that used dichotomous samplers as reference devices. It is possible that a ratio as low as 0.05 (as was found in the prior field tests of unpaved roads) might be appropriate, but this would require extrapolation of the current test data to high PM<sub>10</sub> concentrations."

Page iv of "Analysis of the Fine Fraction of Particulate Matter in Fugitive Dust"

Air Control Techniques, P.C. confirmed the EPA conclusions in our own tests of mineral industry sources.

Furthermore, this is a logical PM<sub>2.5</sub>/PM<sub>10</sub> ratio considering that mineral dust is not very friable and resists particle attrition by physical processes.

For these reasons, I believe that the PM<sub>2.5</sub>/PM<sub>10</sub> ratio of 0.1 is an appropriate and perhaps a moderately conservative ratio to use in the SGI emission calculations.

Mr. Matthew Watson  
Response to PA DEP Emission Inventory Questions  
October 17, 2023, Page 7 of 9

## Summary

The letter summarizes the technical basis for the emission factors and emission factor calculations in the FY2022 emission inventory. I hope that this information is helpful in responding to the DEP questions raised in their October 4, 2023 email.

Sincerely

A handwritten signature in cursive script, appearing to read "John Richards".

John Richards, Ph.D., P.E.  
President, Air Control Techniques, P.C.

Attachment, Excerpts from the October 4, 2023 email from PA DEP to SGI

**ATTACHMENT**  
**Excerpt from the October 4, 2023 PA DEP email**

1] The below emission factors were listed in the 2022 emission inventory emission calculation worksheets. Please provide an explanation for how each emission factor below was developed.

ID	Name	(TSP)	(PM-10)	(PM2.5)
		lbs/ton	lbs/ton	lbs/ton
208	Dryer	2.6800	1.4600	0.83000
015	Dryer #400	2.680	1.460	0.830
303	1D Preheater	2.680	1.460	0.830
304	2D Preheater	2.680	1.460	0.830
317	Fines Loading	0.0003	0.0001	0.00001
317	Fines air slide	0.0003	0.0001	0.00001
317	Fines Tank	0.0003	0.0001	0.00001
401B	Oiler G-11*	0.0014	0.0014	0.00014
305A	1 Paint Mixer	0.0005	0.0005	0.00005
305A	2 Paint Mixer	0.0005	0.0005	0.00005
305A	3 Paint Mixer	0.0005	0.0005	0.00005
305A	1 Aerator	2.680	1.460	0.830
305A	2 Aerator	2.680	1.460	0.830
305A	3 Aerator	2.680	1.460	0.830
305A	1 Paint	0.0014	0.0014	0.00014
311A	1D Oiler*	0.0014	0.0014	0.00014
311A	5 Kiln	2.6800	1.4600	0.83000
309	3 Kiln	2.680	1.460	0.830
308A	2D Oiler*	0.0014	0.0014	0.00014
308A	2 Kiln	2.680	1.460	0.830
308A	4 Kiln	2.680	1.460	0.830
309	6 Cooler	0.00050	0.00050	0.000050
311A	5 Cooler	0.00050	0.00050	0.000050
308A	1 Cooler	0.00050	0.00050	0.000050
213B	Granules Bagger*	0.0003	0.0001	0.00001
213B	Granules Loading*	0.0003	0.0001	0.00001
515	dryer	2.680	1.460	0.830
525	rotary oiler*	0.0014	0.0014	0.00014
420B	510 air classifier	0.0225	0.0104	0.00104
420	187 screw conveyor*	0.0014	0.0000	0.0000046
106	Blasting	0.0005	0.0005	0.0005
107	Loading	0.0001	0.0001	0.00001
199	Fines Loading	0.0003	0.0001	0.00001

2] In the 2022 emission inventory emission calculation worksheets, it was noted that varying capture efficiencies for control devices was reported. Please provide the criteria used to determine each capture efficiency for all controlled sources.

3] In the 2022 emission inventory emission calculation worksheets, it was noted that PM<sub>2.5</sub> was estimated to be 1/10<sup>th</sup> of the PM-10 emissions. Please provide a reference as to their basis for the estimation.

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