

Votorantim Cimentos North America
Community Liaison Committee
September 10, 2021



St Marys Cement



Agenda

- ❖ **Welcome and Introductions**
- ❖ **Alejandro Aviles; New Operations Manager**
- ❖ **Review of June 4th, 2021 Meeting Minutes**
- ❖ **Complaints 2021 Year to Date**
- ❖ **Dust Complaints Procedure**
- ❖ **SMC Dust Complaints**
- ❖ **SMC Odour Complaints**
- ❖ **Alternative Fuels**
- ❖ **Questions Brought Forward in Advance of Today's Meeting**
- ❖ **Round Table**
- ❖ **Closing Remarks**

Welcome and Introductions



Community Liaison Committee

The next Community Liaison Committee is going to be held **September 10th, 2021 at 10am**. Due to the COVID-19 Pandemic this meeting will be held virtually. Members of the public who wish to observe as the members of the Committee discuss information with respect to St Marys Cement can watch the live meeting online. Please see the Town of St Marys Event Calendar for the link to the online meeting.

Please submit any questions and concerns in advance of the meeting to kara.terpstra@vcimentos.com.

- ❖ Thank you to the Town of St Marys for allowing us to use their Youtube Channel
- ❖ Round Table Introductions
- ❖ Did anyone have any comments/concerns about the June 4th Meeting Minutes

Alejandro Aviles

In August 2021 St Marys Cement Plant welcomed Alejandro Aviles as the new Operations Manager. Alejandro has over 30 years experience in the cement manufacturing industry.



Discussion Points

- Where do you see the future of the cement industry in terms of environmental challenges and changes?
- What does it mean to you to be a business within a community?
- Based on the history of St Marys Cement within the community of St Marys what challenges do you see ahead and what changes would you like to see?
- What commitments do you have for the residents of St Marys and the Community Liaison Committee?

Complaints 2021 Year to Date

Complaints 2021 Year to Date

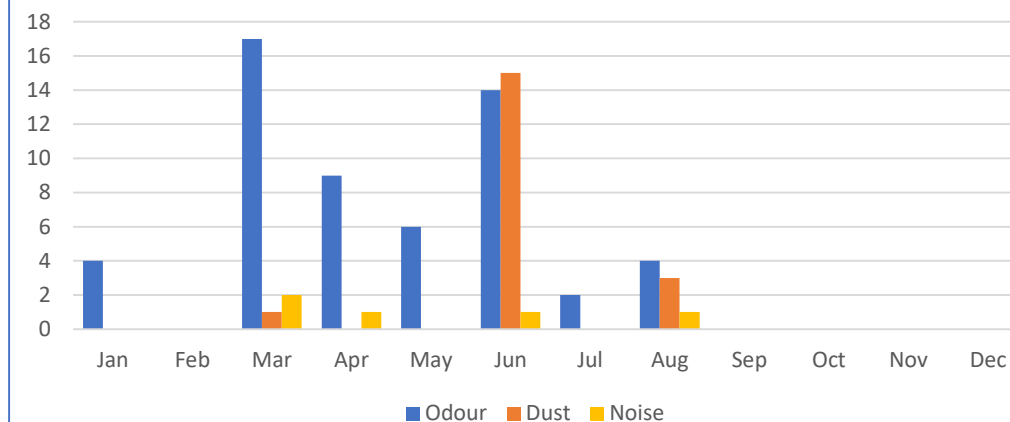
	Odour	Mention Health*	Dust	Noise
Total	56	48	20	5
January	4	3	0	0
February	0	0	0	0
March	17	16	1**	2
April	9	9	0	1
May	6	1	0	0
June	14	11	15***	1
July	2	2	1	0
August	4	3	3	1
September				
October				
November				
December				

*Complaints which 'Mention Health' are counted when a resident calls with an odour complaint and highlights that they have health concerns. They are not separate complaints received by the plant.

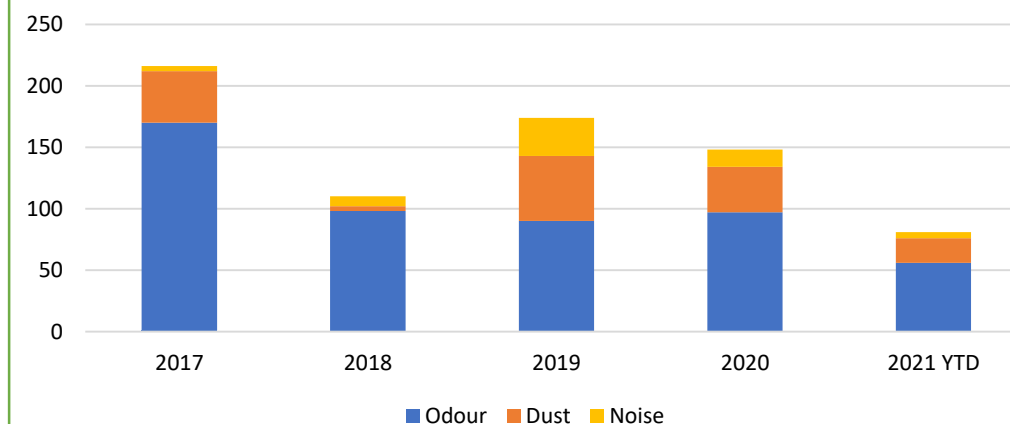
** Dust complaint indicated limestone with chlorides, likely road salt.

*** 13/15 Dust Complaints received in June came from 1 day at 3 different locations, see future slides

2021 Complaints



Complaints Year to Year



Dust Complaints Process

St Marys Cement has developed a procedure where the facility work with residents to address community dust concerns

1. When SMC receives a dust concern from a resident, a representative from the cement plant promptly goes to the residence and takes a sample of dust off of the vehicle.
 - Complaints need to be prompt to ensure no contamination can occur.
 - SMC uses deionized water and ash-less filter paper to remove the sample from the vehicle.
 - Deionized water does not add any mineral contaminants to the sample
 - Hydration of the dust on the vehicle allows us to see how the dust reacts with water
 - Ash-less filter paper is critical in the analysis process
2. The sample is taken from the windshield or sunroof of the vehicle for several reasons
 1. Not from a painted surface to avoid scratching the paint
 2. Not from the rear window because a lot of dirt can be kicked up from the wheels and settle the back window
 3. Not from the side windows because dust needs a horizontal surface to settle on
3. SMC then analyzes the sample in the St Marys Cement lab to determine if it matches any of the raw materials or products at the facility. The test methods used at the lab are commonly used in the cement industry and we can use the results to compare to our own on site products and materials.



Dust Complaints Process

While the sample is in the lab at St Marys Cement begins the root cause analysis investigation

A. Complaint Location

- A. Location relative to St Marys Cement operations
- B. Distance from the plant
- C. Location relative to other sources of dust
 - A. Construction
 - B. Farming activities
 - C. Roadways (paved and unpaved)
 - D. Seasonal sources ie. Road salt or pollen

B. Weather Conditions

- A. Wind Direction
- B. Wind Speed
- C. Rain / Moisture (dew)

C. Plant Conditions

- A. St Marys Cement employees are constantly observing for dust being emitted from any source on site
- B. If dust is identified then employees take immediate action to eliminate the dust
- C. Actions taken are recorded in a log

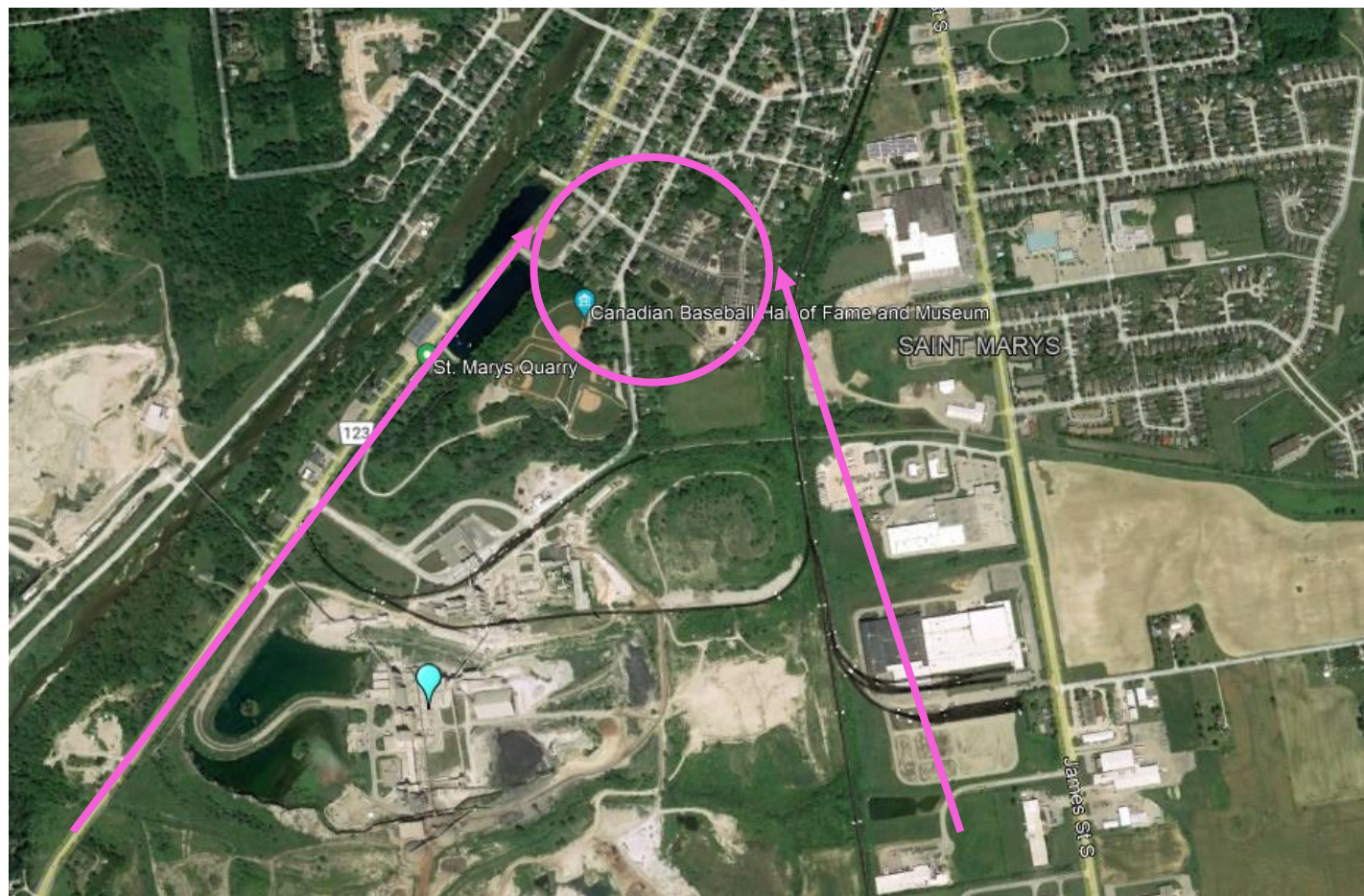


Dust Analysis Process

Constituent	Constituent	Analysis
LOI	Loss of Ignition	We ignite the filter paper to see what remains. None of the products or materials at St Marys Cement will combust. Things like organic matter will.
SiO ₂	Silicon Dioxide	Silica is one of the most commonly occurring elements and is found in most types of rock including limestone used at SMC.
Fe ₂ O ₃	Ferrous Oxide	Iron is important in cement for strength
Al ₂ O ₃	Aluminum Oxide	Aluminum is important in cement for strength
CaO	Calcium Oxide	Calcium Oxide is the biggest component of Cement
MgO	Magnesium Oxide	Magnesium to calcium ratio is important for cement expansion, set time, and strength
SO ₃	Sulphur Trioxide	The ratio of other metal compounds relative to the calcium, silica, and magnesium varies based off the raw materials and products we create
K ₂ O	Potassium Oxide	
Na ₂ O	Sodium Oxide	
TiO ₂	Titanium Oxide	
P ₂ O ₅	Phosphorous Oxide	
Mn ₂ O ₃	Magnesium Oxide	
Cl	Chloride	
ZnO	Zinc Oxide	
F	Fluoride	

SMC Dust Complaints

❖ June 3-4, 2021; 13 residents at 3 locations



June 3rd to June 4rd

Calls from Residents

- SMC received calls on Thursday June 3rd and Friday 4th.
- Residents noted the dust had settled between Wednesday afternoon and Thursday morning
- SMC took samples starting at 2:30pm on Thursday June 4th

St Marys Cement Investigation

- Weather – The wind direction between Wednesday afternoon into Thursday morning varied from East to South. Overnight the weather was rainy and foggy.
- Appearance - The dust looked like small balls of dust had hit the vehicles, exploded, and then rolled down the glass. The dust was not sticky or gritty when the sample was taken. The dust was not a thin film which is typically seen during complaints.
- Analysis - Analysis of all 5 dust samples taken from the plant indicated levels of calcium too low for cement plant limestone and magnesium too high for cement plant limestone. Magnesium in limestone causes cement to expand and is undesirable in the process past certain percentages.

Conclusion

- As a result of the analysis SMC concluded the dust complaint did not originate from SMC.

Dust Complaints

Date	Number of Complaints	Results
June 2, 3, 4	13	Was not SMC due to high magnesium
June 16	1	Did not resemble any on site materials
June 28	1	Indicated Cementitious Materials
July 12	1	Indicated Cementitious Materials
August 18	1	Indicated Cementitious Materials
August 23	2	Residents both said it happened 'over the last few weeks'

Odour Complaint June 18th



Odour Complaints June 2021 to Present

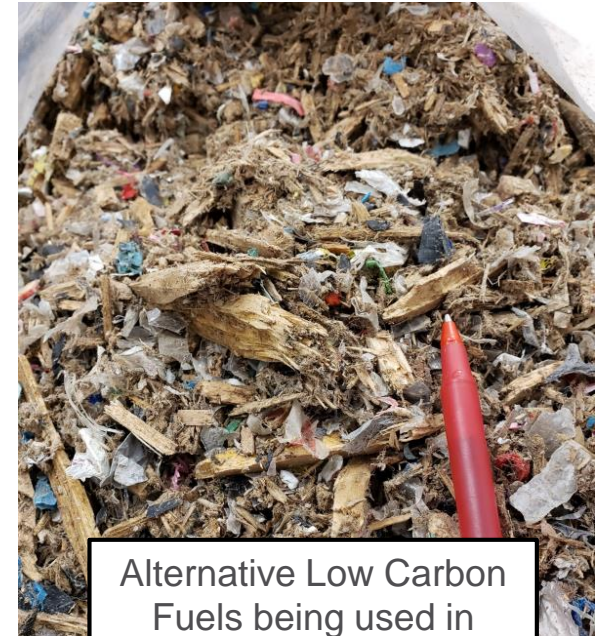
Date	Enviro-Suite Results
Tuesday, June 1, 2021, 'Morning'	Possibly originated from SMC
Sunday, June 6, 2021, 7:40pm	Likely originated from SMC
Monday, June 7, 2021, No time given	Location not provided
Tuesday, June 8, 2021, 'Morning'	Possibly originated from SMC
Sunday, June 13, 2021, 9:30am	Not SMC
Thursday, June 17, 2021, 10:20am	Not SMC
Thursday, June 17, 2021, 11:30am	Likely originated from SMC
Thursday, June 17, 2021, 1:50pm	Possibly originated from SMC
Thursday, June 17, 2021, 6:30pm	Likely originated from SMC
Friday, June 18, 2021, 1:40pm	Likely originated from SMC
Thursday, June 24, 2021, 12pm	Likely originated from SMC
Thursday, June 24, 2021, 12:15pm	Likely originated from SMC
Thursday, June 24, 2021, 2pm	Likely originated from SMC
Saturday, June 26, 2021, 6:20pm	Likely originated from SMC

Date	Enviro-Suite Results
Friday, July 23, 2021, 11:17am	Not SMC
Friday, July 23, 2021, 3:41pm	Not SMC
Wednesday, August 4, 2021, 9:51am	Possibly originated from SMC
Wednesday, August 11, 2021, 3:57pm	Location not provided
Tuesday, August 24, 2021, 11:30am	Possibly originated from SMC
Thursday, August 26, 2021, 11:38am	Not SMC

Type	Count
Likely originated from SMC	8
Possibly originated from SMC	5
Not SMC	5
Location not provided	2

Alternative Low Carbon Fuels Permitting

- VCNA St Marys Cement (SMC) believes that cement, concrete and aggregates production require a **commitment to improve natural resource allocation and to reduce emissions**
- SMC plans to apply under Ontario Regulation 79/15 to use Alternative Low Carbon Fuels at St Marys Cement Plant
- Proceeding with the use of Alternative Low-Carbon Fuels at St Marys Plant will help **reduce greenhouse gas emissions in Ontario** and use materials **that have valuable heat value** content out of land-fills



Alternative Low Carbon
Fuels being used in
Bowmanville – St Marys
Cement Plant



Questions Brought in Advance

- None

WATER FOUNTAIN PRECAUTIONS DURING COVID-19



DRINKING SPOUT

Avoid placing your mouth on the spout of the water fountain to reduce the risk of transmission of COVID-19 and other germs.

WATER BOTTLE REFILL

Don't allow your water bottle to come into contact with the nozzle to avoid the risk of transmission of COVID-19 and other germs.



PRACTICE HAND HYGIENE

Wash hands with soap and water or use an alcohol-based hand sanitizer after touching any buttons or levers on the fountain.



Round Table & Closing Remarks

Kara Terpstra – Environmental Manager
at 519-284-1020 x 235

or at

kara.terpstra@vcimentos.com