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 **St Marys Cement**

## Community Liaison Committee Meeting

Date: June 7<sup>th</sup> at 10am

Location: St Marys Town Hall

- Welcome and Introductions
- Review of March 8<sup>th</sup> Meeting
- Complaints 2019 Year to Date
- MECP- St Marys Cement Air Quality Monitoring – Updated Ontario Sulphur Dioxide Standards
- SMC – Sulphur Dioxide and Cement Manufacturing
- PDHU Report on Pneumonia in St Marys
- PDHU Request for info on Bonis Property
- Stack Extension
- Questions Brought Forward in Advance of Today's Meeting
- Round Table
- Closing Remarks

# Welcome and Introductions

## Review of March 8<sup>th</sup> Meeting

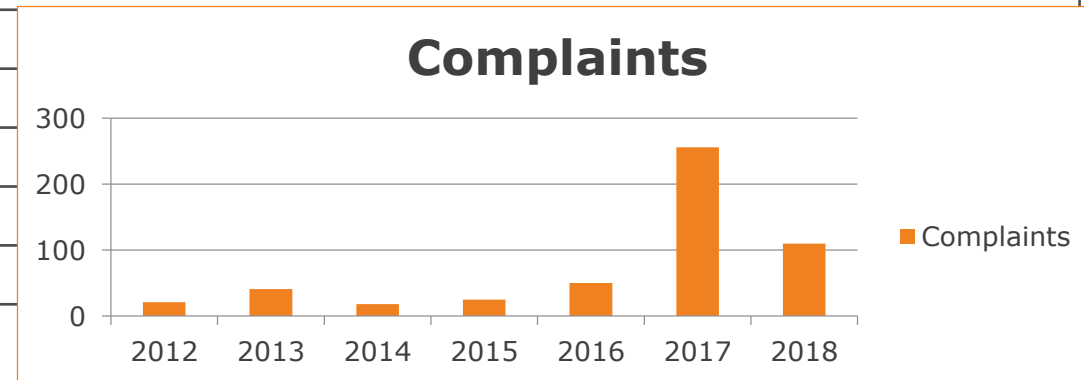
# Community Complaints



St Marys Cement



2019				
	Odour	Mention Health	Dust	Noise
Total	15	10	0	2
January	3	2	0	0
February	1	0	0	1
March	4	1	0	0
April	2	2	0	0
May	5	4	0	1
June				
July				
August				
September				
October				
November				
December				



- Complaints received by the MECP and SMC
- Not necessarily related to SMC
  - \* January 2019 SMC received 2/3 odour complaints where the wind direction did not line up with the complaint location
- Complaints which mention health were directed towards St Marys Cement, not the Perth District Health Unit

# MECP- St Marys Cement Air Quality Monitoring – Updated Ontario Sulphur Dioxide Standards



The previous air standards for sulphur dioxide (SO<sub>2</sub>) were set in the 1970s. The standards were updated to reflect current science and better protect human health and the environment. The Ontario government develops air standards by reviewing scientific information about the effects of contaminants on health and the environment, as well as approaches taken in setting air quality criteria by leading organizations such as the US Environmental Protection Agency, the World Health Organization, and Health Canada. In addition, information considered in the development of the Canadian Ambient Air Quality Standards for SO<sub>2</sub> was also used to inform Ontario's air standards. Comments received from stakeholders were also taken into consideration.

# MECP- St Marys Cement Air Quality Monitoring – Updated Ontario Sulphur Dioxide Standards

***CLC Question: In the November report from the Ministry of the Environment, Conservation and Parks (MECP) on the portable monitoring data, the SO<sub>2</sub> Ambient Air Quality Criteria (AAQC) was reduced from 250 ppb to 40 ppb effective March 20, 2018. I do not recall this reduction being mentioned earlier. When did MECP London office know of the regulation change date?***

The proposal for the changes to the SO<sub>2</sub> standard was published on the Environmental Registry at: <https://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTMyOTQ1&statusId=MjAxOTQ3&language=en> on October 27, 2017.

In addition to being referenced in the 2<sup>nd</sup> interim St. Marys monitoring report as noted in the question, the new SO<sub>2</sub> standards were also referenced in the 1<sup>st</sup> interim St. Marys monitoring report dated January 2018. In January 2018, the new SO<sub>2</sub> standards had been proposed but not yet adopted. In anticipation of the change to the standard, the 1<sup>st</sup> interim report compared the SO<sub>2</sub> concentrations to both the existing and future air standards. There were no exceedances of either standard noted during that time period.

Please note that the ministry's air monitoring reports for St. Marys are available at: <http://www.townofstmarys.com/en/living-here/air-quality.aspx>

***CLC Question: Are there differences in standards between AAQC and Local Air Quality Regulation (O.Reg. 419/05)? If so can you explain?***

The ministry establishes an Ambient Air Quality Criteria (AAQC) based on a desirable concentration of a contaminant in air, and protection against adverse effects on health or the environment. The term “ambient” is used to reflect general air quality independent of location or source of a contaminant. AAQCs are most commonly used in environmental assessments, special studies using ambient air monitoring data, assessment of general air quality in a community and annual reporting on air quality across the province.

Air standards are used to assess the contributions of a contaminant to the local air by a regulated facility. If a facility can demonstrate that the maximum concentration of the contaminant emitted by the facility does not exceed the air standard, no additional requirements are necessary. Most facilities in Ontario meet the general air standards.

In situations where the air standard is or may be exceeded, facilities are required to collect more detailed information about exposure to the contaminant being modelled or measured. This information may be used to confirm that the air standard is met or may identify the need for additional action.



***CLC Question: Is the regulation change effective immediately after March 20, 2018 or is there any phase in period?***

The Ambient Air Quality Criteria (AAQC) took effect immediately on March 20, 2018.

The decision notice was published on the Environmental Registry at: <https://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTMyOTQ1&statusId=MjA1MjUz>.

The Local Air Quality Regulation (O.Reg. 419/05) standards have a five-year phase-in period. The new SO<sub>2</sub> standard takes effect on July 1, 2023.

***CLC Question: Are there any non-attainment areas in Ontario with the new regulation? If so, how many and where are they?***

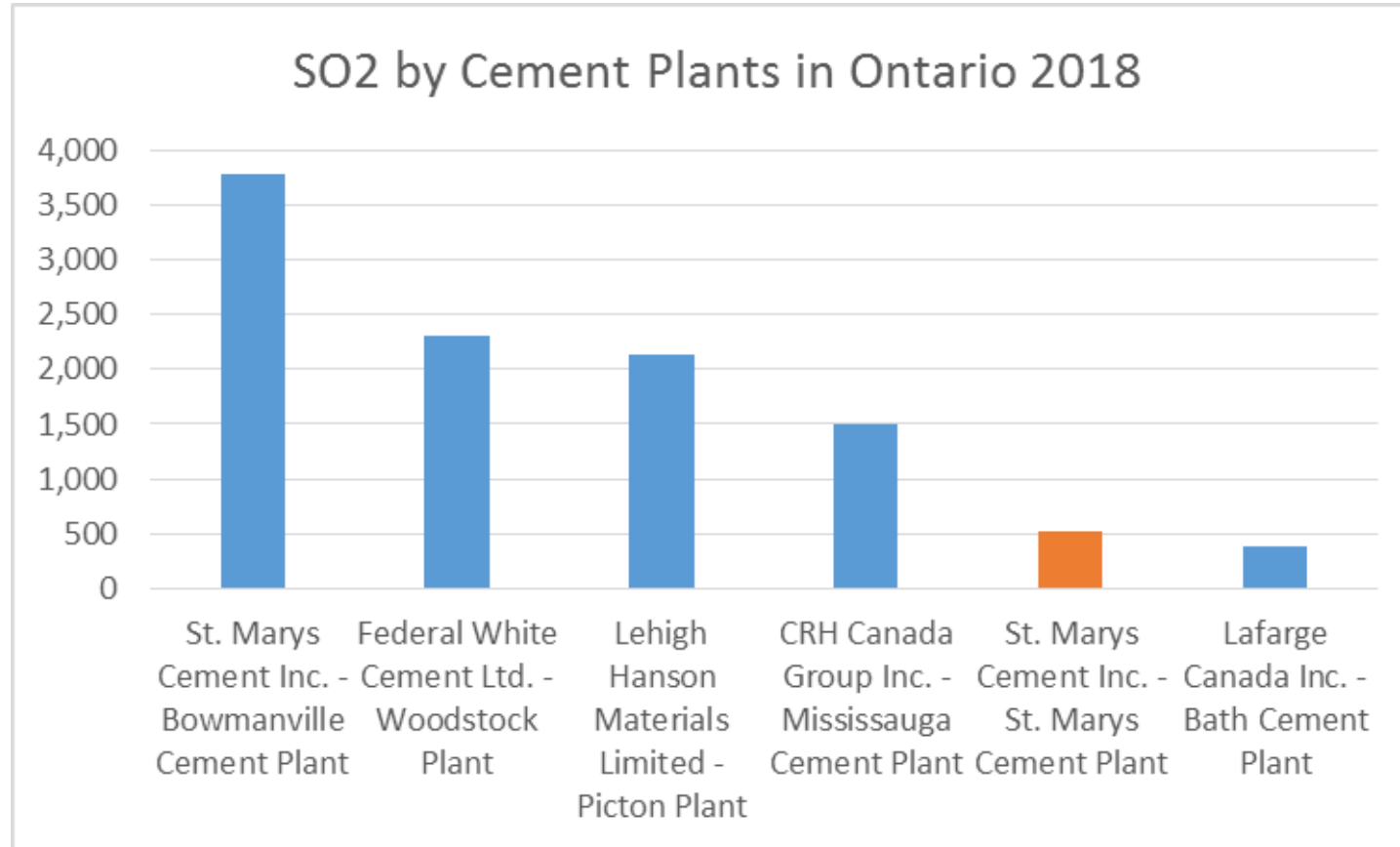
According to the 2016 Air Quality in Ontario Report (<https://www.ontario.ca/document/air-quality-ontario-2016-report>) which publishes the data from the Ontario-wide air quality monitoring network, the 1-hour SO<sub>2</sub> concentration exceeded 40 ppb in Windsor, Sarnia, Hamilton, and Sudbury. This concentration was exceeded less than 1% of the time at all locations.

- **SO<sub>2</sub> is produced in the process in the kiln**
- **It comes from either the limestone or the fuel**
  - Limestone in St Marys has very low SO<sub>2</sub> content <2% by mass
  - Petcoke has a slightly higher SO<sub>2</sub> content of 16-20% by mass
- **In the kiln the heat of reaction causes the SO<sub>2</sub> to be released**
- **The process itself acts as a scrubber and reacts with the SO<sub>2</sub> to re-adsorb it into the raw material feed, and the SO<sub>2</sub> is captured in the product/clinker**



# SMC – Sulphur Dioxide and Cement Manufacturing

- St Marys Plant average SO2 since 2017 is 65ppm
- St Marys Plant average SO2 in 2019 is 41ppm
- St Marys Plant SO2 emissions are 7.2% of the MECP Point of Impingement limit



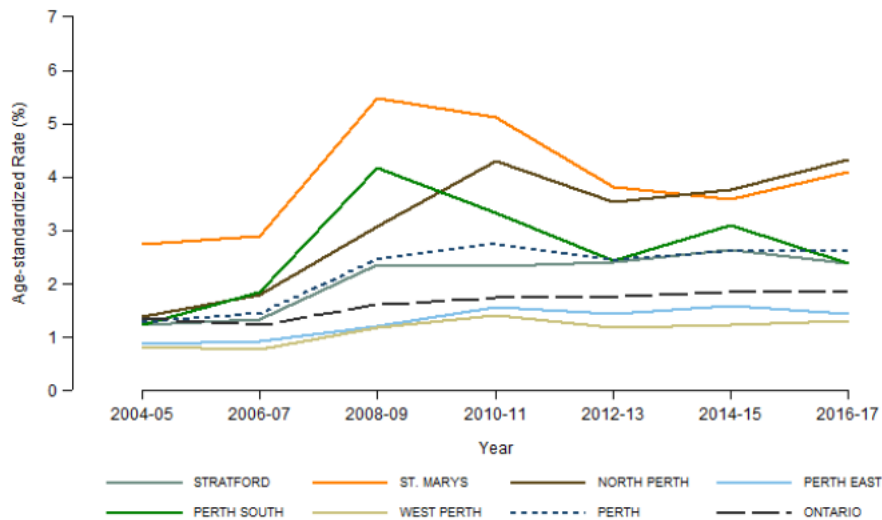
# PDHU Report on Pneumonia in Perth County

## St Marys Cement Health Hazard Investigation Follow Up: Pneumonia Rates in St Marys



### Pneumonia Rates for St. Marys

**Figure 1.** Emergency department visits due to pneumonia: age-standardized rate (per 100 population) among residents of Perth County and its municipalities at any Perth County hospital and Ontario residents visiting any Ontario hospital, 2004-2017



The age-standardized rates<sup>1</sup> of pneumonia visits have been increasing over time for Perth County, its municipalities (except for St. Marys), and Ontario (Figure 1). The rate of pneumonia visits has been stable over time for St. Marys; fluctuations are due to small numbers.

The age-standardized rate of pneumonia visits is higher for Perth County compared to Ontario. The rates of pneumonia visits are impacted by many factors, including practice patterns and smoking rates. Smoking rates are higher in Perth County compared to Ontario (Perth District Health Unit, 2018). The age-standardized rates of pneumonia visits are higher for Stratford, St. Marys, North Perth and South Perth and are lower for West Perth and Perth East compared to Ontario.

The age-standardized rate of pneumonia visits is higher from 2004 to 2009 for St. Marys compared to the other municipalities; the reason is unknown at this time. From 2010 to 2017, the age standardized rate of pneumonia visits for North Perth and St Marys are similar, and higher than the other municipalities. Some of this variation may be due to practice patterns, as North Perth and St. Marys both have small primary hospitals where it is common practice for the on-call physician to see lower acuity patients in the emergency department.

### Conclusion

Having reviewed the data compiled in this report, the Health Unit does not believe further investigation is required regarding pneumonia rates in relationship to St. Marys Cement.

### To obtain more information, contact:

Rebecca Hill  
Communications Manager, Perth District Health Unit  
653 West Gore Street, Stratford, ON N5A 1L4  
519-271-7600 ext 279  
[communications@pdhu.on.ca](mailto:communications@pdhu.on.ca)

# PDHU Request for info on Bonis Property

**From:** Stephanie Carlisle [<mailto:scarlisle@pdhu.on.ca>]  
**Sent:** May-02-19 11:30 AM  
**To:** Kara Terpstra <[kara.terpstra@vcimentos.com](mailto:kara.terpstra@vcimentos.com)>  
**Subject:** SMC

Hi Kara,

I just spoke with a resident on perth line 3 st. marys who stated they received a letter from SMC giving them notice about the quarry being dug up behind their properties and to test their well water to ensure nothing is compromised. The resident didn't have the SMC letter with him for me to look at.

I didn't ask the resident so I'm emailing you to ask how long this digging in the quarry is going to last for? Just so we have an idea of how long residents may or may not be calling or coming about this letter.

I provided this fact sheet for his reference: <http://www.pdhu.on.ca/health-topics/environment/water/well-water-testing/what-to-do-if-your-drinking-water-is-unsafe-to-drink-fact-sheet-2/>

We only provide bacterial water testing – any other kind of testing must be done thru a private lab (chemical, mineral etc).

Anything you can provide would be great!

Thanks – Stephanie

**Stephanie Carlisle**  
Public Health Inspector  
Perth District Health Unit

# SMC Response to PDHU Regarding Bonis Property



Hi Stephanie,

My name is David Hanratty and I am the Director of Land & Resource for St. Mary in North America. I understand from Kara (through the email below) that you have spoken to a resident near our quarry after they received a letter from us. I am managing this project internally for St. Marys, so I wanted to explain the background on this letter so that you are aware of what is happening.

We recently purchased a parcel of land to the west of our existing St. Thomas Quarry in St. Marys. We are currently completing all of the required studies on the land prior to submitting an official licence application under the Aggregate Resources Act. One of the technical studies that we are completing as part of this comprehensive package is a detailed hydrogeological analysis on what the potential influences might be associated with the extraction of the resource on these lands. This would be, if approved, an extension of the existing quarry (i.e., the quarry would just get a bit bigger), so nothing 'new' per se with respect to what is currently occurring in the area (on our existing site).

The letter that went out to the residents was done so as part of the analysis we are completing in the hydrogeological assessment. Golder Associates, the firm referenced in the letter to the neighbours, is the firm completing the hydrogeological assessment. I have copied their lead hydrogeologist, Devin Hannan, on the project in case you have any further technical questions. The request was simply to interview the neighbours through the filling out of a questionnaire about their well and the examination of their well/system if we had their consent to do so.

The Aggregate Resources Act is a lengthy process. We anticipate submitting our application towards the end of this year/beginning of next, which will start a formal consultation process with the neighbours etc., and kick off a comprehensive review by multiple agencies. Answers regarding the potential influence on surrounding wells will be addressed through this process.

If you have any questions please do not hesitate to reach out.

Very best regards,

David

David Hanratty, P.Geo.

[Votorantim Cimentos](#)

North American Aggregates | Director of Land & Resources

[David.Hanratty@vcimentos.com](mailto:David.Hanratty@vcimentos.com)

## Stack Extension

## 1. What is the cement plant going to do about people in town who send negative comments to residents who have expressed their concerns about the cement plant emissions?



- We would hope and expect that people engaging in social media forums and interacting on a day to day basis would always treat each other with dignity and respect that they deserve.
- Facebook, in its Community Standards, states:
  - Every day, people come to Facebook to share their stories, see the world through the eyes of others, and connect with friends and causes. The conversations that happen on Facebook reflect the diversity of a community of more than two billion people communicating across countries and cultures and in dozens of languages, posting everything from text to photos and videos.
  - We recognize how important it is for Facebook to be a place where people feel empowered to communicate.
- Conversations are occurring on Facebook between people who are neither employed by or acting on behalf of the company.
- At St Marys Cement we have our Values and Beliefs, which we use to guide our conduct including how we address and respect others.
  - Our process for fielding concerns are:
    1. Making ourselves available for discussions and encourage residents to participate in discussions
    2. Holding our Community Liaison Committee meetings which provide an additional and formal environment and process for addressing concerns.
    3. Providing opportunities for people to come to visit the plant to learn more.



### 2. What are other cement plants doing around the world for odour?

- Cement plants have a legal obligation to comply with regulations established by experts who set standards for air quality and public safety.
- Based off the specific conditions of each cement plant location and materials and processes used, each solution for controlling emissions must be site specific and engineered for each location.
- St Marys Cement's Odour Abatement Plan looked at the raw material and processes on site and determined the source of the odour was the limestone coming from the quarry and the most effective form of mitigation is to increase the dispersion.
- Extending the stack height will mitigate odour in an effective manner as per the Air Dispersion Modelling.

- **1) What is the status of the extended smoke stack?**
  - Refer to previous slide
  
- **2) Would it be possible to get all the stack sampling, MOECC mobile and stationary monitoring data?**
  - MECP Update
  
- **3) Are there any plans to reduce emissions?**
  - St Marys Cement has several processes to control emissions on site including an ammonia system to decrease NOx emissions and baghouses to control dust.
  - St Marys Cement ensures that all regulatory limits are met as per Federal and Provincial standards.

## Round Table

## Closing Remarks

**Kara Terpstra – Environmental Coordinator**  
at 519-284-1020 x 235  
or at  
[kara.terpstra@vcimentos.com](mailto:kara.terpstra@vcimentos.com)