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 **St Marys Cement**

Community Liaison Committee Meeting

Date: December 6th, 2018

Location: St Marys Pyramid Centre

- **Format of the Meeting**
- **Welcome and Introductions**
- **Review of September 7th Minutes**
- **Community Complaints**
 - **Odour**
 - **Noise**
 - **Dust**
 - **Health**
- **Odour Abatement Plan Status and Next Steps**
- **Community Concerns brought to the CLC**
- **Round Table**
- **Closing Remarks**
- **Open Question / Answer Period with the Public**

Format of the Meeting

Welcome and Introductions

Review of September 7th Minutes

Community Complaints



St Marys Cement



Month 2018	Odour	Health (SMC)	Noise	Dust
January	0	0	0	0
February	9	0	1	1
March	9	1	1	1
April	3	0	0	0
May	15	2	2	2
June	6	3	1	1
July	8	2	0	0
August	23	8	2	0
September	6	0	0	0
October	8	5	0	0
November	9	1	0	0
December				

- Complaints received by the MECP and SMC
- Not necessarily related to SMC

Odour Abatement Plan and Next Steps

Nuisance Odour Abatement – Material Substitution



St Marys Cement



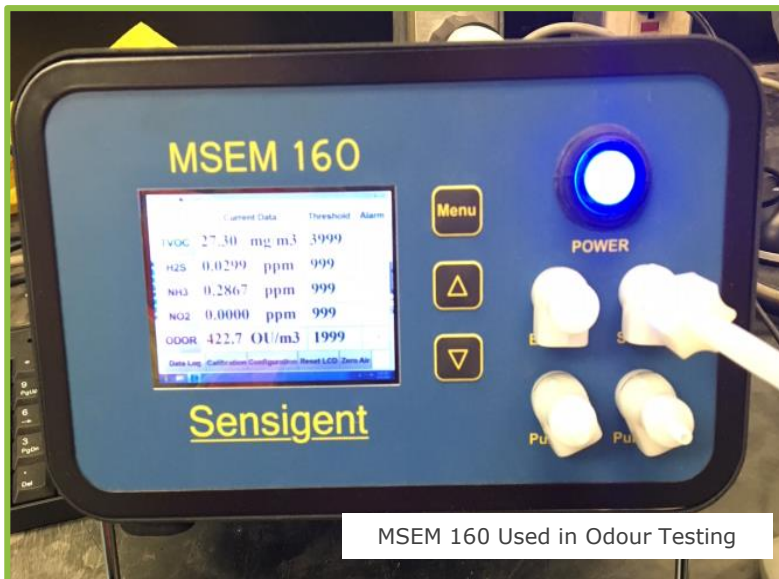
Tube Oven Used in Odour Testing

Lab Odour Testing

- SMC has completed lab-scale testing for determining odour contribution of our raw materials
- Samples were heated in a tube oven, similar to the cement process, and the gases emitted from each sample were captured
- Gas samples were analyzed in both an electronic odour analyzer (MSEM) and a sensory olfactometer



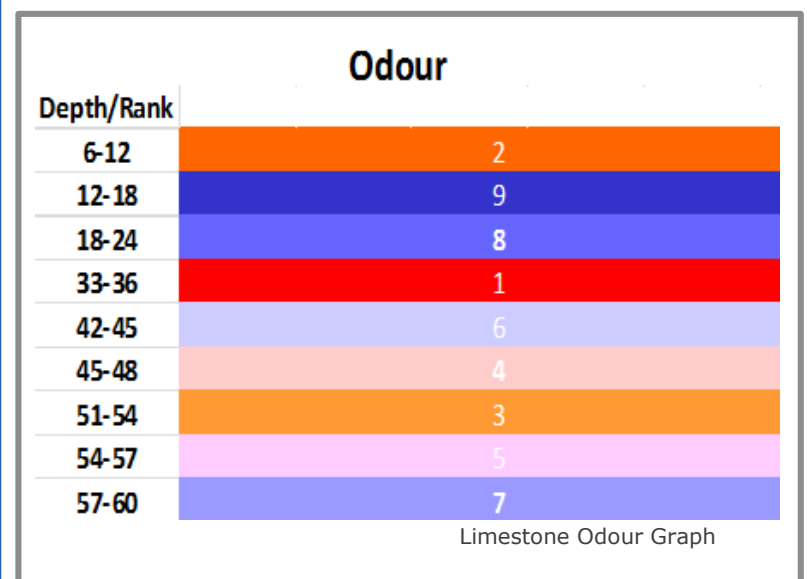
Olfactometer Used in Odour Testing



MSEM 160 Used in Odour Testing

Lab Testing Results

- SMC analyzed numerous samples including raw materials, limestone samples, petcoke, and kiln feed mixtures
- Samples of limestone consistently tested higher in odour units than other samples
- Analysis of limestone showed odour concentrations are random at different depths
- Since limestone makes up 75-80% of our raw material mixture, it cannot be eliminated or substituted
- As a result of this testing, SMC is now focusing odour abatement efforts on improving dispersion



Nuisance Odour Abatement – Improving Dispersion



St Marys Cement

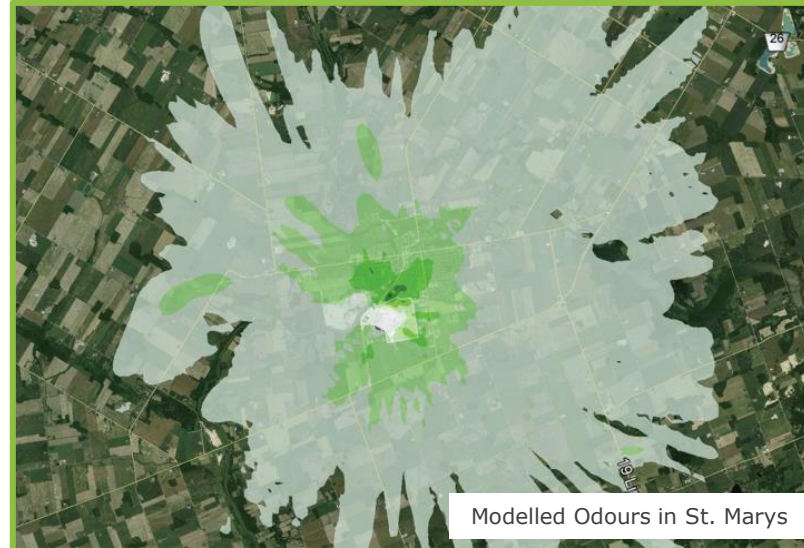
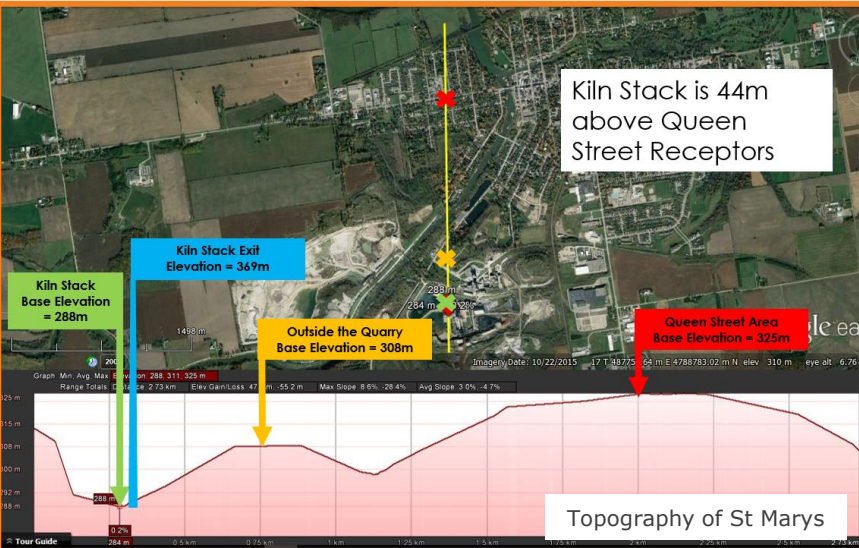


Improving Dispersion

- SMC used a complex long-range transport air dispersion computer program (CALPUFF) to model odours from the plant
- CALPUFF considers local weather data, local topography, local land use data and measured odour emissions from the stack to predict and model odours in the community
- The model was validated for accuracy using ambient field measurements
- The validated model was then used to predict the change in community odours as a result of increasing the stack height and/or increasing the stack flow rate
- The results from this extensive modelling program identified two options to mitigate community odours:
 - The optimum stack height extension alone
 - The optimum combination of a stack height extension and stack flow rate increase
- Engineering feasibility studies to be completed in 2019
- Determine and refine the best option are scheduled to be completed by 2020



Field Validation Using a Portable Olfactometer



Modelled Odours in St. Marys



St Marys Cement Plant Stack

Concerns Brought Forward in Advance of Tonight's Meeting

Email from a Resident, November 30th

1. What analytic methods and on what frequency do you test your Petcoke for Sulphur and Sulphur compounds and b) can you correlate those compositions with the timing of the Odour complaints?
2. At the June 1st meeting, a consultant company was mentioned (Zorix?). It was said they were trying to help identify the specific raw materials that were causing the odour. What have they done and what have they discovered?
3. How can you increase the efficiency of the built in limestone scrubber to reduce the amount of sulphur in the emissions?
4. Can you please explain again the role of gypsum in the process, especially as it relates to sulphur?
5. You have said: "We are also chipping away at the variables from a process side and have yet to find the source, so we keep on investigating." Could you please tell me what variables you have investigated from the process side?
6. Could you explain to the public how they can receive copies of the minutes of the past CLC meetings?

Email from Resident, November 28th, 2018

At past meetings, we learned that incidences of various health concerns in St. Marys were tracked by the PHU and the numbers were not found to be a concern.

The fact that "silent sufferers" were not included in those numbers was raised in a letter to the editor (July 5) in the local paper. At the September 7 CLC meeting, one part of this concern was addressed in that it is difficult to monitor those who move away. However, the fact that many other people with symptoms do not go to the doctor was not addressed.

My question concerns these "silent sufferers". Does the PHU have any suggestions as to how to systematically research the number of people who experience ill health effects from the Odour, but who do not go to the doctor?

Round Table

Guest Consultants for the Question and Answer Period



Closing Remarks

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Open Question / Answer Period