

St Marys Cement Community Relations Committee

Meeting Minutes

Tuesday December 4th, 2018

5:00 p.m. – St Marys Cement, Bowmanville Plant

Attendees: Amy Burke, *Senior Planner*, Municipality of Clarington
Cherisse Diaram, *Quarry EIT*, St Marys Cement
David Veenstra, Port Darlington Community Association
Ernie Hamilton, *Quarry Manager*, St Marys Cement
Jeff Mitchell, Port Darlington Community Association
Jim Storey, *Operations Manager*, St Marys Cement
Luis Urbina, *Environmental Manager*, St Marys Cement
Ruben Plaza, *Environmental Manager*, St Marys Cement
Tanya Pardy, *Human Resources Manager*, St Marys Cement
Kim Lendvay, *Senior Environmental Officer*, MOECC
Pauline Witzke – *Port Darlington Community Association*

Guests: Denis Corr, Manager Audit and Research, *Rotek Environmental Inc.*

Regrets: Jim Grimley, Wilmot Creek Homeowners Association

1. Distribution of Copy of Newsletter Article and Agenda

2. Presentation by Denis Corr of Rotek

a) Presentation Notes

- Particulate Matter
 - Airborne matter that includes aerosols, smoke, fumes, dust, fly ash and pollen
 - Three main categories as defined by Ministry of the Environment, Conservation and Parks (MECP)
 - ❖ Total particulate matter (TPM)
 - ❖ PM 10 – inhalable particulate (included in TPM) – stay suspended for hours/minutes and could get deposited in upper respiratory tract and could be cleared using clearance mechanisms
 - ❖ PM 2.5 – respirable particulate (included in both TPM and PM10) – stays suspended for days/weeks (transported throughout large regions, ie. Ontario air quality is influenced by Ohio Valley emissions) capable of penetrating aveolar in lungs and could cause more problems
- Map of monitors – multiple and different types in different areas

- Constant monitoring of PM10 using rolling small strips (one on each side of property) – hooked to a communications system which sends realtime results to Rotek and to MECP
- Non-continuous PM10 – on a midnight-midnight timer, sucks air through a filter, and filters sent out for testing every 6 days – these types of monitors subject to different standards
- Dust fall monitors – “like a bucket with a plastic bag in it”, left out for one month and then collected and tested – sample is collected and dried to collect both soluble and non-soluble fractions
- Meteorological station – wind and weather conditions very critical (wind influences whether or not particulates are transmitted to certain areas) – three instruments in different locations monitoring same conditions (wind speed, gusts, pressure, etc.)
- MECP Operations Manual for Monitoring Air Quality lays out conditions for monitoring station placements and practices (elevation, relative tree placement)
- SMC Continuous PM10 Monitoring Program –
 - Instruments are Met One BAM 1020, head filters out material over 10µm and then uses a rolling tape to capture remaining PM10 matter, tape rollers move forward every hour
 - MECPAAQC is 50 µm/m³ for 24 hour running average
 - Beijing might be 800-900 µm/m³ for 24 hour running average and urban centres in India are even higher
- Non-Continuous PM₁₀ High Volume Air Sampler
 - Instrument sucks material at a constant flow rate into sample collector
 - Scheduled for 6 day period each week, all across north America
- Non-continuous Total Dustfall Sampler
 - Containers prepared in lab and then set up and collected roughly monthly
 - Units are grams per square meter per 30 days (g/m²/30 days)
- PM2.5
 - Fine particulate matter (30 times smaller than diameter of human hair)
 - Major component of smog
 - Can have negative health effects especially on respiratory and cardiovascular system
 - Main components in Ontario nitrates, sulphates, organic matter and particulate bound water
 - Formed in atmosphere or as product of combustion processes
- MECP reports on air quality and this includes a survey of different industry emitters
 - Cement and concrete accounts for approximately 4% of Ontario PM2.5 emissions
- Point Source Contribution of PM2.5
 - Air quality on highways typically very poor
 - PM2.5 does not seem to respond to SMC emissions though PM10 does spike
- Regional PM2.5 Events
 - November 16th involved a PM10 spike at SMC but results from Nanticoke, Hamilton, Milton showed spike of PM2.5
 - PM2.5 generally indicates regional events
 - ❖ Eg. June 30th PM10 Events showed spikes in that week

- ❖ Possible to correlate results from other monitors in region, Napanee and Oshawa showed same trend indicating this was a regional event (these are far enough away that they wouldn't be influenced by SMC activities)
- ❖ All ministry monitors are PM2.5 monitors
- MECP PM2.5 Standards
 - Canadian Ambient Air Quality Standard for PM2.5 developed jointly by Federal government and the provinces
 - Achievement of standard is to be based on 24 hour 98th percentile ambient measurement annually over three consecutive years
 - ❖ This serves to remove anomalous occurrences but helps protect from long term or chronic exposure
 - Standards reducing permissible level of emissions from 2015 levels in 2020
 - ❖ Daily (24 hour emissions) 2015: 28 µg/m³ to 2020: 27 µg/m³
 - ❖ Annual emissions 2015: 10 µg/m³ to 2020: 8.8 µg/m³
 - ❖ MECP audits every quarter for locations, effectiveness of control activities and produces an industry report
- Copy of presentation posted on website

b) Questions and Comments

- Piles of material at dock facility – are these materials ending up at the homes along the lake shore
 - Wind roses indicate that most winds coming from NW
 - Dust matter from the dock would be captured from different areas on the different monitors
 - Reviews have not indicated that this is a problem but it has occurred in the past
 - Vegetation located south of SMC2 could block the materials from the dock
 - Suggestion to cast an eye on this possibility
- Is PM2.5 coming from stack? Is this measured?
 - PM2.5 usually a product of combustion processes
 - Particulate matter is measured in the stack but not PM2.5 but it is measured during stack testing
- Why are the stations so close?
 - SMC took over old ministry monitor
- Are alerts sent?
 - Alerts are sent and analysis is done as soon after alert as possible and results presented in meeting
- Strange materials found
 - Homeowner and Ruben walked around property and collected samples where matter was visible
 - Meeting found material that could not have been from plant (not widespread or in areas of accumulation that would be expected to be from plant)
 - Tested and found to be mold
 - Findings disputed by other homeowner who says that the matter is distributed
 - Resident does not know the results of the analysis was mold

- Results should be communicated to resident

3. Review of Community Concerns

a) Community concerns between May and September

- 1 related to noise on 02/10/2018
- 1 related to blast on 15/10/2018

b) October 2nd Complaint

- Temporary monitor placed in early October as part of alternative fuel trials
- Resident complained about noise
- Luis called company supplier and they added additional noise cladding to monitor
- Monitor is temporary

c) October 15th complaint

- Resident called complaining of blast, spoke to Tanya but did not provide a lot of information about complaint or contact information
- Resident indicated that he was going to call MOE and municipality
- Results of monitoring program reviewed and indicated that results were within regulatory limits
- Complaint to MOE also possible anonymous
- No complaint related to this to was received by the municipality but complaints would be communicated to SMC from both municipality and ministry

4. St Marys Operations Report

a) Monitoring Station Locations

- The monitoring station locations were reviewed and are as follows:



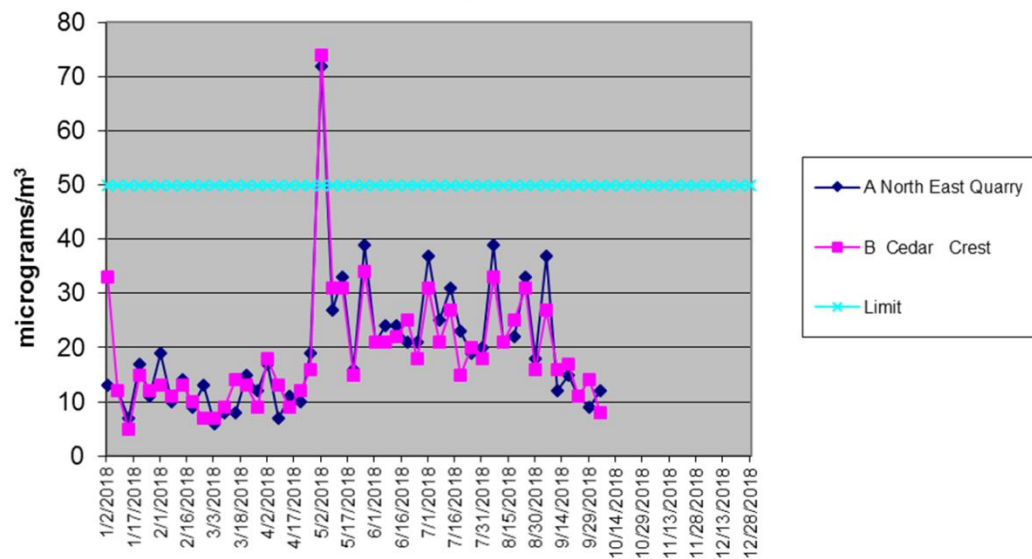
- PM 10 stands for particulate matter which is less than 10 microns in size
- Dust fall jars take a sample over 30 days which is sent for testing, PM 10 BAM monitors take an hourly sample and PM 10 hi-vol monitors take a sample for a 24H period, every 6 days

b) Seismograph location

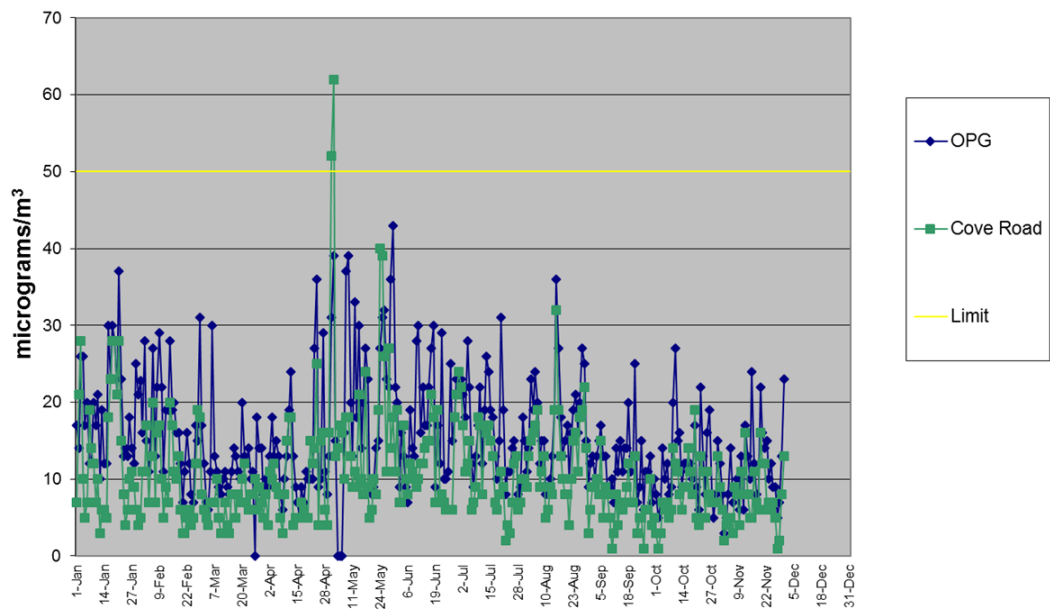
- Temporary unit at vacant municipal lot on Cedar Crest Beach Road while discussions on the placement of permanent monitor are underway.

c) PM10 Results

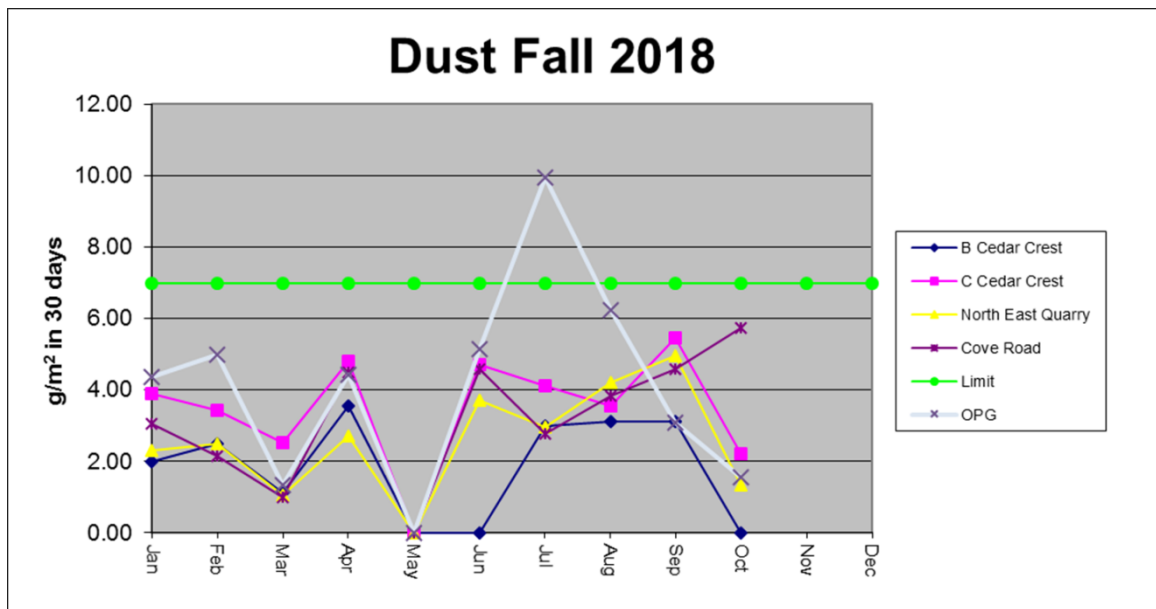
PM 10 Program 2018



2018 PM 10 BAM Avg 24 hrs.



d) Dust Fall Monitoring



e) PM10 Exceedances

No particulate matter (dust) exceedance since last CRC meeting

f) SO₂ and NO_x Stack Emissions

- SO₂ emissions exceeding allowance, will transfer credits from St Marys Plant
- Scrubber project has started and is hoped to be commissioned in late 2019, dependant on project progress
- Results are for January to November



5. Environmental Projects

- 47 trees, 23 Norway Spruce and 24 White Spruce, were planted at the entrance of the site

6. Quarry Operation

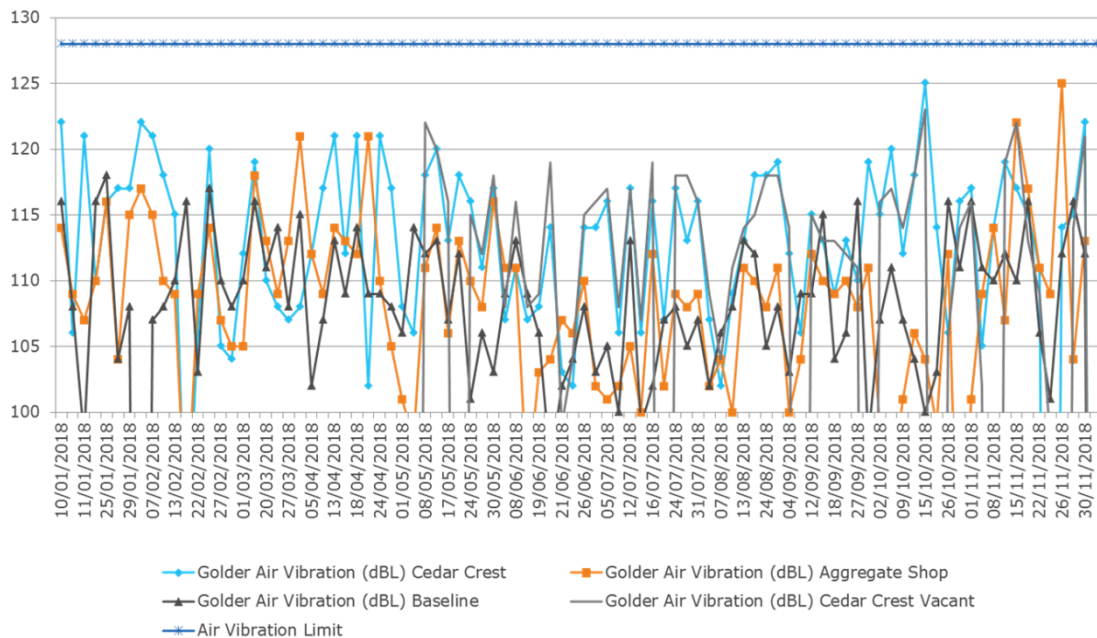
a) General Quarry Operations

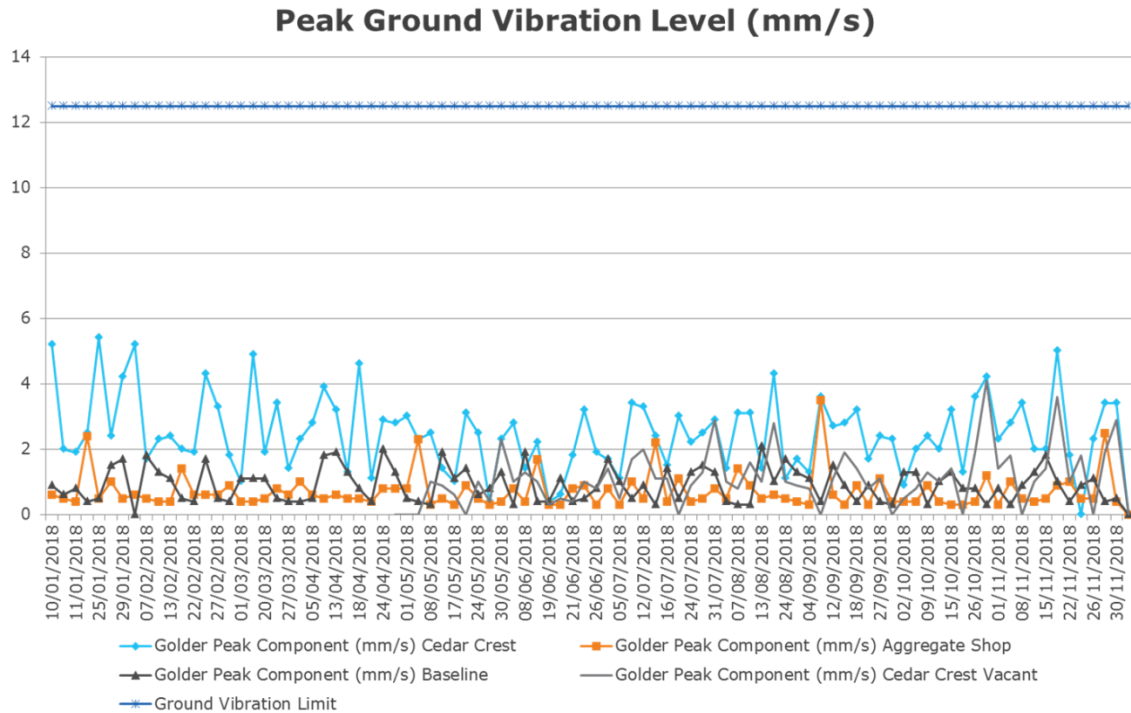
- Producing 2,3,5 primarily until Spring
- No ground or air vibration exceedances for 2018
- Overburden stripping, screening and stockpiling
 - Screening overburden for plant use completed for 2018
 - No significant berm construction remaining for 2018
 - Clay hauled as part of Port Hope Area Initiative continuing, weather permitting

b) Vibration Results

- No ground or air vibration exceedances to date in 2018

Peak Air Vibration Level (dB)





7. Community Outreach

- Bowmanville Hospital Donation for wing
- Durham College Donation
- Bowmanville Museum
- Clarington Big Brothers & Big Sisters
- Santa Claus Parades – Bowmanville, & Courtice
- Clarington Sports Hall of Fame
- Take Our Kids to Work Day – 30+ students

8. Other items

a) Alternative Fuels

- Demonstrations are ongoing
 - Testing of stack emissions part of the demos

b) CLOCA Report

- Report is still in draft form and is currently open to community review

c) Plant 50th Anniversary

- 2018 represents the 50th year since the cement plant opened in Bowmanville

d) Councillor

- Should be determined this month and will be invited to attend next meeting

9. Next Meeting

- March 19th @ 5pm