



August 20, 2020

Ministry of the Environment, Conservation and Parks
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**The Regional
Municipality of
Durham**

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Attention: Client Services and Permissions Branch

**RE: Environmental Compliance Approval (Air and Noise)
#0469-9YUNSK for St. Marys Cement Inc. (Canada)
Environmental Registry of Ontario #019-2055**

St. Marys Cement, (St. Marys) has made an application to amend their Environmental Compliance Approval (ECA) under Ontario Regulation (O. Reg.) 79/15: Alternative Low-Carbon Fuels, and the proposed amendments include:

- Expanding the list of approved alternative low carbon fuels (ALCF), to include biomass, cellulosic and plastic materials derived from industrial and/or post-consumer sources, which cannot be recycled, are not considered hazardous and are not derived from animals or the processing and preparations of food.
- Increasing the current approved maximum consumption rate of ALCF from 96 tonnes per day to 400 tonnes per day.
- Installing new equipment at the facility to accommodate the additional ALCF
- Increasing the capacity of the current ALCF storage at the facility using enclosed containers and buildings.
- Making changes to cement kiln process parameters.

The Regional Municipality of Durham (Region) has reviewed the available submitted information and has the following comments for consideration.

- The Region recognizes the potential benefits from the usage of ACLF within the facility, including the offset of other fuel usage. However, given the nature of the facility, including proximity to residential areas, understanding potential impacts of the facility are important in ensuring the health of the community and the environment.

The ECA notice for the facility identifies emissions from the facility include particulate matter, nitrogen oxides, sulphur dioxide, carbon monoxide, metals, and organic compounds. As a condition of the current ECA, the Region understands that St. Marys is required to operate both Continuous Emissions Monitoring Systems, as well as Ambient Air systems to measure potential effects from the facility.

The Air Quality Study and Cumulative Effects Assessment in support of the application identifies maximum concentrations for five communities in table 6-1. The Region notes that the Air Quality Criteria identified in table 2-1 for sulphur dioxide are not reflective of the Ministry of the Environment, Conservation and Parks (MECP) regulatory changes which were announced in March 2018 to the O.Reg. 419/05 air standards for sulphur dioxide, as well as proposed updates to the ambient air quality criteria (AAQC) values. The Region is of the understanding that the AAQCs for sulphur dioxide (SO₂) were scheduled to come into effect in Spring 2020, and that the O.Reg 419/05 values are currently in a phase-in period until July 1, 2023. These updated limits will reduce the one-hour values from 690 µg/m³ to 100 µg/m³, based on respiratory morbidity in exposed sensitive populations. Given the updated limits tables 2-1 and 6-1 should have utilized the updated one-hour SO₂ value, which would have resulted in all five communities assessed presenting values above the criteria (values ranged from 101.0 to 321.7 µg/m³). The Region also notes, that based on the Region's understanding, there is no in-stack SO₂ limit for the facility, as SO₂ emissions for the facility are managed under an Emissions Trading Registry. Given the imminent decrease in the SO₂ criteria, and in the absence of an in-stack limit, the Region is concerned that St. Marys will not be able to ensure the facility remains in compliance with the updated ambient air limits.

- Information presented at the first Public Meeting identifies that the ambient monitoring stations surrounding the facility record PM₁₀ (BAM and Hi-Vol), Dust, and contain seismographs. Given the list of emissions from the facility identified above, including the levels of SO₂ being emitted, consideration should be given to upgrading or adding additional monitoring stations with an expanded list of

parameters, and requirements be included for reporting the results of the monitoring to the MECP and the public.

Currently, the Region operates two ambient air monitoring stations as part of the operations related to the Durham York Energy Centre (DYEC) which monitor local ambient air quality. The Region, as part of the Region's preparation for the lower SO₂ limits, reviewed air quality monitoring data. It was noted during the review that higher levels frequently occurred during periods of winds from the east to south east directions at the stations, which place the stations up or cross wind from the DYEC. The Region has requested the modelling results from St. Marys for the existing stations (which were included as receptors) to determine the potential impacts of the facility on the Region's local ambient air station readings. These results have not been received to date. The Region understands that discussions relating to the modelling approach are being conducted between St. Marys and the MECP.

It is important that the potential impacts on local air quality are well understood during project development and remain monitored against MECP standards and objectives throughout the project lifecycle. Given the similarities in emissions between the St. Marys projects and the DYEC, it is important that comparable monitoring and information reports be provided to stakeholders, so that they can remain informed with regards to how projects could potentially impact their communities. To this end, the Region would like to see the St. Marys project be required to have comparable in-stack limits, ambient air monitoring requirements and report to the public as those directed in the DYEC ECA.

We look forward to receiving responses to the comments provided.

Sincerely,



Susan Siopis, P.Eng.
Commissioner, Works

- c. G. Anello, M.Eng., P.Eng., PMP, Director, Waste Management Services, Durham Region
A. Evans, M.A.Sc., P.Eng., Project Manager, Waste Planning and Technical Services, Durham Region