




Hamilton

INFORMATION UPDATE

TO:	Mayor and Members City Council
DATE:	December 12, 2018
SUBJECT/REPORT NO:	Central Composting Facility Operations – Odour Mitigation Measures – Update #4 (City Wide) (ES18019)
WARD(S) AFFECTED:	City Wide
SUBMITTED BY:	Craig Murdoch, B.Sc., Director, Environmental Services Division Public Works Department
SIGNATURE:	

This Information Update is to inform the Mayor and Members of Council on the status of the shutdown and the resumption of the Central Composting Facility (CCF) operations including the status of the investigation actions.

On June 24, 2018, the City ceased the acceptance of green bin material at the CCF and began the process of a voluntary and temporary shutdown of the CCF operations in response to odour. As part of the shutdown, the City immediately stopped accepting organic material from both the City’s Green Bin program and other municipalities. The controlled shutdown was completed on August 17, 2018 and the facility is now completely cleared of organic material and not operational.

Investigative Actions

To date, the City and its operations contractor have completed their respective investigations into the causes of the odour experienced in June 2018. Both the City and its operations contractor are in the process of reviewing those investigative findings.

In addition to the investigation into the causes of the odour experienced in June 2018, the City and the operations contractor have also concluded the review of a regulatory change implemented by the Ministry of the Environment, Conservation and Parks (MECP) in early 2018. This change included adjustments to the AERMOD (atmospheric dispersion model that is used to estimate concentration of air emissions from a source) and meteorological data that the City is required to use to determine if odour performance limits of the CCF, outlined in the Environmental Compliance Approval (ECA), are being met. It has been determined that this change has affected

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the CCF's overall ability to meet odour performance limits, and therefore, facility upgrades are required.

Upgrades to the Central Composting Facility

Following the assessment of the air model, it has been determined that in order to meet odour performance limits, as outlined in the site and air ECAs, the following upgrades to the CCF's odour management systems are required:

- Installation of an acid scrubber to assist in the removal of ammonia generated by the composting process;
- Extension of the biofilter exhaust stack from 30 metres to 50 metres to allow for further emissions dispersion; and
- Installation of a carbon filtration system to assist with the treatment of odours.

In order to move forward with the changes to the operations and upgrades to the facility, staff have developed and submitted an ECA amendment to the MECP. Staff and the MECP are working together to expedite the approval process.

Resumption of the Central Composting Facility Operations

Staff and the operations contractor have been working together to develop a start-up plan for the CCF that will address short, medium and long term operational requirements. Because upgrades to the facility are required for full operations, the initial start-up of the CCF will be at limited capacity.

Following the investigation and air modelling, it is believed that the CCF can operate at a 20,000 tonne per year processing capacity without upgrades to the odour control system and still be in compliance with regulatory parameters. The 20,000-annual tonne processing limit, along with the temporary grass and leaf and yard waste ban, means that the facility will be able to handle all of the remaining source separated organic material from the City of Hamilton's Green Bin program.

Initially, the CCF will operate under limited capacity, but following the approval of the ECA amendment by the MECP, the design, procurement and installation of the recommended upgrades, the CCF will be able to operate at a maximum capacity of 40,000 tonnes per year. Going forward, staff and the operations contractor will not be utilizing the curing building during the composting process and that all composting and curing of green bin material will take place in the main processing building of the CCF under full odour control systems.

Staff have been working closely with the operations contractor and the MECP representatives with the goal of resuming operations at the CCF in the coming months.

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In preparation of the expiry of the current CCF operations contract in December 2020, staff are reviewing the option of bringing the operations of the CCF inhouse, meaning that operations and maintenance of the CCF would be managed by City staff. Staff will report back to Council on this option and associated costs.

Third Party Processing of City's Green Bin Program Organic Material

As approved by Council on September 17, 2018, through Report PW18088 titled Third Party Processing of Green Bin Organic Material and Temporary Removal of Grass and Leaf & Yard Waste from the Green Bin Program, a portion of the City's green bin material collected from the curb is being consolidated at the Dundas Transfer Station and is being transferred to the third party for composting.

To date, the total amount sent to third party composting is approximately 385 tonnes. Staff will continue to evaluate the need for third party processing following the resumption of the CCF operations.

If you have questions, please contact Joel McCormick, Manager of Waste Collections, at 905-546-2424 extension 5601.

Appendices and Schedules Attached

Not applicable