

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed by 

SUBMITTED BY: _____
Jacques Dubé, Chief Administrative Officer

DATE: January 15, 2018

SUBJECT: **Prohibition on Use of Garburators in HRM**

ORIGIN

- November 22, 2016 meeting of Regional Council, Item No. 9.1
Review of Report Requests
- At the April 1, 2008 meeting of Regional Council the following motion was put and passed regarding agenda Item No. 10.3.1:
That Regional Council request a staff report to investigate options to prohibit in-sink garborators in new home construction and other options such as inclusion under By-Law W-101, to reduce organic waste into HRM systems.

LEGISLATIVE AUTHORITY

Section 199(1) of the *HRM Charter* provides that “Without limiting the generality of Section 188, the Council may make by-laws”

(a) prescribing minimum standards of sanitation, plumbing, water supply, lighting, wiring, ventilation, heating, access, maintenance, appearance, construction and material for buildings, or parts thereof, occupied for residential purposes, whether the building, or part thereof, is erected, constructed or converted to residential purposes before or after the date of the making of the by-law;

Section 199(2) of the *HRM Charter* states that “The Council may make by-laws prescribing minimum standards of sanitation, plumbing, water supply, lighting, wiring, ventilation, heating, access, maintenance, appearance, construction and material for buildings, or parts thereof, occupied for commercial purposes.”

Section 343(1) of the *HRM Charter* provides that “No person shall permit the discharge into wastewater facilities or a stormwater system of the Municipality or into wastewater facilities or a stormwater system or building service connection connecting with the wastewater facilities or stormwater system of the Municipality of

- ... (h) sewage containing animal fats, wax, grease or vegetable oil in liquid or solid form in concentrations exceeding those specified by the Council, by by-law; ...

- ... (j) sewage in concentrations of suspended solids that exceed the limit specified by the Council by by-law;
- (k) sewage that exerts or causes biological oxygen demand and chemical oxygen demand greater than amounts specified by the Council, by by-law, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment facilities;

RECOMMENDATION

It is recommended that Halifax Regional Council direct staff not to take any action regarding the regulation of garburators in new home construction in the Municipality.

BACKGROUND

On April 1, 2008, Regional Council passed a motion “to request a staff report to investigate options to prohibit in-sink garburators in new home construction and other options such as inclusion under By-Law W-101, to reduce organic waste going into HRM systems.”

The Councillor Request for Information document preceding the motion confirmed that, based on discussions with applicable HRM staff, garburators add to the organic loading of the municipal wastewater system and contribute to fat, oil and grease accumulation in both the private and public side of the wastewater infrastructure. Council’s discussion of the motion highlighted whether residents using private on-site septic systems should be exempt from any garburator regulations. Council also noted the potential for the staff report to address how a prohibition would affect restaurants and the retail sector.

In recognition of the transfer of wastewater responsibilities from the Municipality to the Halifax Regional Water Commission (Halifax Water) in 2007, Council’s request for a staff report was referred to Halifax Water with the intent for the report to be provided to the Halifax Water Board instead of Regional Council.

On October 7, 2010, the Halifax Water Board received an information report (Attachment A) from staff in response to the 2008 referral. The report provided a national jurisdictional scan of municipal garburator regulations, in addition to sharing the results of Halifax Water’s informal assessment of garburator impacts on wastewater quality in three residential condominiums in the municipality.

The report concluded that:

“Based on our analysis, Halifax Water would support either a prohibition of the use of garburators or the continued use of garburators, as we currently see no significant impact on our wastewater collection or treatment systems.”

The Halifax Water report also stated that it may be appropriate for HRM to undertake a review of the use of garburators with regards to their existing composting policies. Neither the 1995 Integrated Waste/Resource Management Strategy nor the 2014 update recommends any measures to regulate garburators.

No action was required following Halifax Water’s 2010 report, and Council’s 2008 request was not addressed again until a review of report requests during the November 22, 2016 Regional Council meeting, at which time Council requested confirmation as to whether garburators were banned under HRM’s Solid Waste Strategy and/or by Halifax Water.

DISCUSSION

Residential garburators are not presently regulated in the municipality. Halifax Water’s Schedule of Rates, Rules & Regulations for Water, Wastewater, and Stormwater Services do not address the residential use of these units in the municipality.

The Nova Scotia Building Code, which HRM enforces under the Building By-law B-201 does not prohibit garburators in new or existing construction in the province. In the Waste Water Nova Scotia Society's *Homeowner's Guide to Septic Systems*, published in partnership with Nova Scotia Environment, the use of garburators is discouraged given the additional cost and septic system maintenance they necessitate.

Halifax Water does not encourage or discourage the use of garburators. Halifax Water found that properties with garburators are within the prescribed limits for discharge to the wastewater system, as set out in Halifax Water's regulations, and the 2010 report indicated there are no known problems attributed to garburators.

The municipality generally discourages the use of garburators as their operation diverts compostable organic material from the solid waste stream, however the volume of waste diverted is not sufficient enough to warrant a prohibition on the use of garburators. As such, staff advise that the adoption of a by-law prohibiting the installation of garburators is unnecessary.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this recommendation.

RISK CONSIDERATION

There are no significant risks associated with this recommendation.

COMMUNITY ENGAGEMENT

There has been no external community engagement in the formulation of this report. Halifax Water was consulted in the development of the report and has provided feedback on the recommendation presented.

ENVIRONMENTAL IMPLICATIONS

There are no negative environmental implications associated with this recommendation. Halifax Water has confirmed that there are no ongoing compliance issues or concerns regarding the maintenance of wastewater infrastructure related to the ongoing use of garburators in HRM. Halifax Water's disposal rates for biosolids/sludge collected following wastewater treatment are not abnormal.

ALTERNATIVES

1. Halifax Regional Council may choose to regulate garburators in new residential construction within the urban service area boundary. This would require a series of by-law amendments to allow HRM to permit and/or inspect garburator units in new home construction. Compliance measures would also be required. This is not recommended based on the evidence outlined in this report.

2. Halifax Regional Council may choose to refer this matter to the Halifax Regional Water Commission for further consideration. This is not recommended based on consultation with Halifax Water staff as outlined in this report.

ATTACHMENTS

Attachment A: *In-Sink Food Waste Disposal Units* Information Report submitted to the HRWC Board, October 7, 2010

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Alex MacDonald, Environmental Performance Officer (Climate Change Specialist), Energy & Environment 902.490.7160



ITEM # 6-I
HRWC Board
October 7, 2010

TO: Colleen Purcell, CA, Chair, and Members of the Halifax Regional Water Commission Board

Original Signed

SUBMITTED BY:

John Sheppard, B.Eng., Director of Environmental Services

Original Signed

APPROVED:

Col Yates M.A.Sc./P.Eng., General Manager

DATE:

September 28, 2010

SUBJECT:

In-Sink Food Waste Disposal Units (Garborators)

INFORMATION REPORT

ORIGIN

At the April 1, 2008 meeting of Regional Council, Councilor Mosher introduced the following:

"10.3.1 Councillor Mosher - Request for Report re: Prohibition on the use of Garborators in HRM.

Motion approved to request a staff report to investigate options to prohibit in-sink garborators in new home construction and other options such as inclusion under By-Law W-101, to reduce organic waste into HRM systems."

BACKGROUND

In recognition that wastewater responsibilities have been transferred to Halifax Water, this request was referred to Halifax Water for the report to be provided to the Halifax Water Board, rather than to HRM Council.

In a report to the Halifax Water Board dated August 7, 2008, staff indicated that further review of this matter was required to identify the issues related to a possible ban of

residential garborators. This report has been prepared to identify Halifax Water's position regarding this matter.

Garborators are promoted by manufacturers and others as an option for solid waste management. The use of garborators diverts food waste from the solid waste management system (municipal compost) into the wastewater system.

In many cities in North America, regulations exist both prohibiting and permitting the discharge of garborated food waste or the use or installation of garborators while some municipalities require the use of garborators.

Currently, there is no by-law or regulation of either HRM or Halifax Water that references garborators.

DISCUSSION

As previously reported, garborators, also referred to as In-Sink Food Waste Disposal Units in the United States and Europe, are electrically powered devices that are typically installed under kitchen sinks for the purpose of grinding food wastes into pieces small enough to be discharged into the wastewater system.

Garborators have become a common kitchen fixture in many municipalities across North America. Garborators are often used in some types of buildings, such as multi-residential buildings, to minimize difficulties with source separation and on-site storage of organics during periods between bulk collection. Larger, commercial garborator units may often be found in restaurants, institutions and food related businesses.

In many cities in North America, regulations exist both prohibiting and permitting the discharge of garborated food waste or the use or installation of garborators while some municipalities require the use of garborators. Through an internet search of related by-laws and ordinances, it appears that municipalities and cities are varied on their approach to the use of garborators. Some are silent on the use while some have banned the use. Only one promotes and requires the use of garborators.

Table 1 provides a summary of the approach of 20 municipalities and utilities that have been identified by Halifax Water staff through an internet search.

Table I.

Municipality	Approach Taken
City of Tucson, Arizona	Promotes use
City of Winnipeg	Considering ban
City of New York	Silent
City of Columbus, Ohio	Silent
Durham Region	Silent
City of Hamilton	Silent
City of Calgary	Silent
City of Toronto	Ban in areas with combined sewers. Silent on other areas.
City of Edmonton	Ban in areas with combined sewers. Silent on other areas.
Capital regional District – Victoria	Ban in areas with combined sewers. Silent on other areas.
City of Guelph	Total ban
Halton Region	Total ban
Town of Okotoks, Alberta	Total ban
City of Ottawa	Total ban
City of Peterborough	Total ban
City of Cobourg	Total ban
City of St. Thomas	Total ban
City of Kingston	Total ban
Fort Erie	Total ban
Halifax Regional Municipality	Silent
Halifax Water	Silent

The cities of Toronto, Edmonton and Victoria have implemented a ban in areas serviced by combined sewers, in order to reduce the organic loading of any combined sewer overflow event.

The municipalities that promote the use of garborators appear to not have a suitable solid waste disposal option. A number of cities or municipalities were noted to report that capacity problems at available landfills motivated the promotion of directing kitchen wastes to the wastewater system in order to reduce the volume of solid waste material entering landfills.

Few detailed studies of the potential impact that garborator discharges may pose have been located for review. One study was the City of New York, who conducted a 21-month pilot program to study potential impacts of permitting the use of garborators. The study indicated that the residential use of garborators had a minimal effect on wastewater infrastructure, collection or treatment.

Halifax Water staff conducted monitoring of three residential condominiums in HRM, one in which each unit is equipped with garborators and the other two without installed garborators. Each condominium had between 80 and 82 occupied residential units.

Sampling was initially conducted in August, 2009 of the wastewater discharge from two buildings, one with garborators and one without. Samples were taken at the same time at every half hour increment during the period of time from 3:00 pm to 7:00 pm. It was anticipated that this time period would represent the period of time that garborators may be used most frequently within a residence in conjunction with food preparation and clean-up activities.

Measured values for both BOD and TSS were found to be in the normal range anticipated for domestic wastewater values. For both measured parameters, the condominium equipped with garborators displayed a slightly lower value for both measured parameters.

Sampling was conducted a second time the following month from 11:00 am to 9:00 pm for the garborator equipped condominium and at another condominium that did not have garborators. This second location provided a more suitable manhole for representative sampling purposes.

Results from this sampling again indicated that the wastewater from a condominium equipped with garborators generated a lower concentration of BOD while generating a slightly higher amount of TSS. Neither of the wastewater loadings from either condominium differs from typical domestic wastewater characteristics.

Halifax Water's Wastewater and Stormwater Collections staff were contacted and reported no known collection system problems that may be attributed to the wastewater discharge from buildings equipped with garborators.

Impacts to HRM's solid waste stream that may arise as a result of the use of garborators in HRM was discussed with staff from HRM's Solid Waste Division. Staff from HRM's Solid Waste Division advised that the Organics Green Cart program has been developed to receive household organics similar to the material that garborators would be used to direct to the municipal sewer system. Diverting food waste away from the municipal sewer system would be consistent with HRM's overall Solid Waste Strategy and would permit recovery of an increased volume of marketable material from compost facilities.

Food wastes and other organic waste materials generated by residents are currently expected to be received and managed by HRM's solid waste management system. A source-separated organic waste stream has been in place in HRM to accept this type of waste material for a number of years.

It may be appropriate at this time for HRM to undertake a review of the use of garborators with regards to their existing composting policies.

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Based on our analysis, Halifax Water would support either a prohibition of the use of garborators or the continued use of garborators, as we currently see no significant impact on our wastewater collection or treatment systems.

ATTACHMENT

N/A