

November 25, 2016

Peter Russell
Senior Manager, Sustainability and District Energy
Engineering and Public Works Division
6911 No. 3 Road
Richmond, BC
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By email: Peter.Russell@richmond.ca

Dear Peter Russell,

Re: Harvest Power's Air Quality Permit

Thank you for your letter sent November 4, 2016 to Dr. Meena Dawar seeking a formal response to Richmond City Council regarding any Vancouver Coastal Health (VCH) public health investigations or assessments of the potential health impacts of the odour related to Harvest Power. Please find below information on complaints received by VCH, our response to these complaints including a review of the relevant published literature, and the assessment of air quality with Metro Vancouver. In addition, we draw your attention to current provincial policy intentions to addressing odour caused by organic matter recycling.

Like the City of Richmond, VCH-Richmond Public Health also receives complaints from members of the public about odour. The majority of reports are about diminished quality of life ("air used to be fresh in Richmond, now it stinks all the time"), a minority have reported concerns about their own health or of their family members, and a few have mentioned symptoms (nausea, vomiting, headaches, feeling unwell). These individuals are referred to Metro Vancouver as the governing body responsible for air quality monitoring in Richmond. VCH Environmental Health Officers are prepared to speak with the complainants, if requested, and have spoken with approximately 6 individuals in 2015 and 30 in 2016. In addition, Metro Vancouver sends VCH an anonymized list of reports on days when they receive ≥ 10 complaints; these have been arriving to Richmond Public Health almost daily in the recent weeks. As always, we also advise individuals reporting health concerns to see their family physician. However, we are not aware of any increase in health care utilization at VCH facilities or in community physician offices from health complaints associated with odour.

VCH staff do not conduct onsite assessments at Harvest Power to address odour issues as this falls within the purview of Metro Vancouver.

We have reviewed the situation with Metro Vancouver staff. Metro Vancouver confirms that the source of the recent odour episodes is likely Harvest Power. Metro Vancouver shared information on complaints received over a recent two day period (November 18-19, 2016). A total of 97 complaints were made by the members of the public who reported the following concerns: Odour (100%), difficulty with opening windows or going outside (14%), and health symptoms (21%). Among individuals who reported health symptoms, the following symptoms were reported: Nausea, respiratory symptoms such as cough or difficulty breathing, symptoms of irritation such

as burning eyes, headache, and vomiting. These are consistent with those noted in the published environmental health literature on the impacts of unpleasant odours from composting (and other sources).

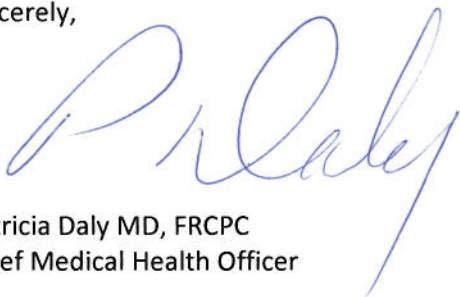
We also reviewed with Metro Vancouver staff their monitoring data for Harvest Power. The total level of Volatile Organic Compounds (VOCs) released from the composting processes at Harvest Power has gone up since 2013. This likely explains the recent increase in odour complaints. Given the sensitivity of the human nose, odour from VOCs produced from composting can be detected at levels much lower than levels that would result in long term harm. Some residents have expressed concern about bioaerosols. Metro Vancouver does not require measurement of bioaerosols (organic particles consisting of animal, plant or microbial particles). Our literature review confirms that while bioaerosols are relevant to the occupational health of staff at the composting facility, they should not impact the health of surrounding residents given the location of Harvest Power relative to the location of residences. Based on the information provided by Metro Vancouver and our literature review, we are satisfied that while Harvest Power is generating extremely unpleasant odorous compounds, the air emissions from the operation are unlikely to cause health effects in addition to ones triggered by the offensive smell. Therefore, as this issue does not meet the threshold of a health hazard, VCH Medical Health Officers and Environmental Health Officers are not planning further health assessments at this time.

Nevertheless, based on calls we and Metro Vancouver have received, the odour from composting operations at Harvest Power is affecting the quality of life and well-being of residents in Richmond. Information from the complaints suggests the odour is causing physical discomfort for some Richmond residents. This is not acceptable.

While even a well-designed, constructed and operated compost system will not be odour-free, it should not produce offensive odours. Metro Vancouver is the delegated authority for regulating air emissions in our region, including odour causing air contaminants. Adequate odour management is imperative for community wellbeing. VCH Medical Health Officers and Environmental Health Officers support the conditions placed by Metro Vancouver on Harvest Power's new permit for odour management.

Finally, the British Columbia government has recognized the need for a better regulatory framework for odour management in the recycling of organic matter. To this end, the Ministry of Environment published an Organic Matter Recycling Regulation Policy Intention Paper in October 2016. The ministry is soliciting feedback to the policy proposals until December 2, 2016.¹ The City of Richmond's experience with responding to odour from the Harvest Power facility could be most informative for the policy reviewers. We encourage the City and the community to submit feedback to this provincial policy review.

Sincerely,



Patricia Daly MD, FRCPC
Chief Medical Health Officer

¹ <http://www2.gov.bc.ca/gov/content/environment/waste-management/recycling/organics/regulations-guidelines>

Cc: Malcolm Brodie
Mayor, City of Richmond

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Medical Health Officer, Richmond

Dr. James Lu
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