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May 23, 2018

File No. 4320-25-FIS

BY EMAIL AND COURIER

David Laing Fisher Road Holdings Ltd. 6844 Oldfield Road SAANICHTON BC V8M 2A2

Dear Mr. Laing:

Re: Application for Major Amendment of Solid Waste Management License 003-06 1355 Fisher Road, Cobble Hill, BC

I have reviewed Fisher Road Holdings' (FRH) application for a major amendment to the composting and recycling operations under CVRD Bylaw No. 2570 - Waste Stream Management Licensing Bylaw, 2004 (Bylaw 2570) and I have approved the application with the conditions set out in the attached License. The application considerations and License conditions are summarized below.

1. Summary of Determination on Application

Subject to the conditions set out in the License, I have determined FRH has met the requirements for granting the following major amendments:

- An increase in incoming compostable yard and garden waste and food waste material from 18,000 tonnes to a maximum of 36,000 tonnes per year:
- An increase in the amount of compostable material waiting to be processed from 168 tonnes to a maximum of 336 tonnes per year:
- An increase in incoming rubble material from 264 tonnes to a maximum of 364 tonnes per year;
- An increase in garbage from composting or recycling activities from 1,485 tonnes to a maximum of 2,000 tonnes per year; and,
- An increase in the amount of garbage managed onsite at any time from 15 tonnes to a maximum of 20 tonnes.

The conditions imposed on the changes above are described in detail in the License. The below conditions are examples of conditions set out in the License:

- Backup generators for the odour control systems to ensure proper functioning during power outages:
- Materials that may, or may have, the potential to impact the environment must be managed on an impermeable surface with leachate collection or managed under a



covered structure with storm-water run on protection on to prevent the generation of leachate:

- All leachate collection systems must be inspected regularly for integrity and leachate, well
 water from onsite wells and non-contact storm water must be sampled regularly;
- All composting must occur according to the provincial Organic Matter Recycling Regulation (OMRR);
- To minimize traffic impact at or near Cobble Hill Village, the Licensee must continue to require truck traffic to enter and exit FRH's property from the highway; and,
- To reduce noise, no diesel-powered grinding equipment is permitted to operate on Saturdays and Sundays.

2. Review of the Application Under CVRD Bylaw 2570

I have reviewed and considered the following as part of FRH's application:

- a. Documents provided by FRH:
 - i. The Fire and Emergency Preparedness Plan and the included Contingency Plan;
 - ii. The Liquid Waste Management Plan;
 - iii. The Odour Management Plan;
 - iv. The Operating Plan and the included Closure Plan; and,
 - v. The Site Plan.
- b. Bylaw 2570, including but not limited to Section 5.4 Evaluation of Facility License Application;
- c. Comments provided by the public;
- d. Comments provided by the Ministry of Transportation and Infrastructure (MoT), Mill Bay Fire Department and Island Health;
- e. Permit 108536 issued to FRH by the Ministry of Environment and Climate Strategy (ENV) under *OMRR*;
- f. Past groundwater studies commissioned by the CVRD, including the Thurber Engineering reports; and,
- g. The Cobble Hill Odour Survey Analysis report by SENES Consultants.

2.1 Documents

The documents listed under section 2a(i-v) above and the operating procedures and requirements stated in those documents will form part of the License.

2.2 Bylaw 2570

Section 5.4 - Evaluation of Facility License Application under Bylaw 2570 requires that I consider the following matters with respect to the application of a major amendment:

"The Manager will consider the following matters with respect to the facility proposed in the application:

- a) the potential risk posed to the environment and public health;
- b) the protection of the environment;
- comments from the host municipality relating to compliance with the local zoning or other bylaws that may affect a facility design and/or operating plan;
- d) comments from persons who consider themselves adversely affected;
- e) information received as a result of the fulfillment of the requirements set out in Sections 5.3 and 5.3;
- f) compliance with the Solid Waste Management Plan;
- g) any operating plan submitted to the Manager under Section 11; and,
- h) compliance by the applicant with the requirements to pay fees and report as required under this bylaw"

I have considered all of these important factors, in particular, the potential risk posed to human health and the environment by the increase to the amount of materials managed at the FRH recycling and composting facility.

2.3 Public Consultation

FRH's major amendment application was first received by the CVRD on December 18, 2015. Revisions of the application documents were required by FRH before the public consultation could begin.

The consultation for the major amendment application included three written public notices published in the Cowichan Valley Citizen newspaper and a billboard posting at FRH facility entrance. These notifications were made to fulfill the public consultation requirements of Bylaw 2570.

The mandatory 45-day public consultation period ended on November 18, 2016. Approximately 20 written comments from the public were received during the consultation period. I have also considered public comments received after the public consultation period, including the written comments from the December 1, 2016 town hall meeting held by the Area Director. Public comments included concerns regarding:

- increased odour:
- increased traffic:
- increased noise;
- the facility's proximity to residential houses;
- the receiving of waste material from the Capital Regional District and its member municipalities;
- the consultation process, in particular the use of newspaper notices;

- changes in operating hours;
- potential impact to groundwater quality;
- · decreased property value of neighbouring residential houses; and,
- the extent of the surface and parcel coverage at FRH's property.

Comments were also received in favour of the application, including:

- the expansion as a way to reduce odours;
- support of waste reduction and convenient recycling for residents in the southern parts of the region; and,
- · support of local employment.

In reviewing the comments from the community, the primary concerns were in regards to increased odour and increased risk to groundwater quality.

2.4 Potential Risk Posed to the Environment and Public Health and Comments Received During the Public Consultation Period

As stated earlier, the community expressed concerns in regard to impacts on human health, in particular to the risk of leachate escaping from FRH's operations and the possibility of contributing to the existing issue of nitrate contamination in the underlying aquifer. In addition, the community expressed concerns in regards to the increased odours and any associated health risks.

I have considered all of these concerns and I have set out my reasoning with respect to the risks to the environment and human health in relation to odour, leachate control and aquifer protection below.

I have also consulted with Island Health (IH) in regards to health risks, the Mill Bay Fire Department (MBFD) in regards to fire risk and the Ministry of Transportation and Infrastructure (MoT) in regards to traffic impacts from the requested changes to FRH recycling and composting operations.

2.4.1 Aquifer

My approval of this application is based in part on the measures FRH has committed to undertake to prevent leachate from entering the environment. FRH must at all times prevent leachates from escaping the property and impacting the environment, including the surface and groundwater. A key part of achieving this goal is to ensure that all the leachate collection systems are monitored and maintained over time. As such, FRH is required to inspect and report on the integrity of the leachate collection system regularly and is also required to continue to monitor onsite leachate, surface and groundwater.

Based on the review of the operating documents described in Section 2 of this letter, I note that FRH is proposing to continue to manage compostable material on impermeable surfaces and collect and re-use leachate, as well as non-contact storm water in their operation. In addition, the composting buildings and covering structures over the outdoor curing compost are anticipated to reduce the amount of compost leachate generated. At the same time, these structures will increase the amount of non-contact storm water that has to be managed onsite. The structures

will also increase the need for water to be added during the composting process as the composting material dries out during the composting process.

It is anticipated that the majority of leachates and non-contact storm water generated onsite will be used in the composting process. If the volume of non-contact storm water exceeds the onsite storage capacity at any time, this water can be directed to a rock pit for infiltration. As set out in the License, at no time is compost leachate permitted to infiltrate, and if excess leachate is generated, it has to be disposed of at an approved facility.

I note that pursuant to Permit 108536, FRH is required to cooperate with the Cobble Hill Aquifer Interagency Task Group (CHAITG), as it relates to elevated nitrate concentrations in the Cobble Hill aquifer.

2.4.2 Odour

Odour from FRH's composting facility, including the concern that odour may increase as a result of this amendment is one of the key concerns for the community.

Considering the limited ability to regulate odours under any provincial regulation or under Bylaw 2570, my focus of this application review is to ensure best management practices at FRH's composting and recycling facilities. In doing so, I have considered what can and what will be done to mitigate odours as part of this application. I have also had to consider what is permitted under the applicable land use regulations (zoning) and I do understand that even the best composting facility will, on occasion, create some odours.

CVRD have received odour complaints in regards to FRH's operations in the past. In 2014, the CVRD retained SENES Consultants to identify the magnitude of the Cobble Hill community odour problem and to try to identify the source(s) of any odours. As part of this application review, I have considered the SENES report, as well as recent odour complaint data.

In reviewing the recent odour complaint data, I note that in 2016, two complaints were received, and that in 2017, 23 complaints were received. Out of the 23 complaints received last year, the odour intensity was rated as 'noticeable' on nine occasions, 'very unpleasant' on five occasions, and 'unbearable' on two occasions. The remaining seven odour complaints did not include an indicator of the odour intensity. One odour complaint has been received to date in 2018. I understand that persons who experience offensive odours may not always complain. I also understand that it is difficult with certainty to identify types and magnitudes of odours and that it is not clear if the reported odours in 2016 and 2017 were caused by FRH's composting operation or caused by any of the other potential odour generating sources in the area, including but not limited to the composting facility immediately adjacent to FRH or other surrounding industrial and agricultural uses.

The key to avoiding strong odours from FRH facility is to ensure best management practices and to reduce odour during the composting process. This is why the optimal composting ranges for oxygen, moisture, etc. continues to be part of the License. In addition, and with the expanded infrastructure of a secondary composting building, the compost retention time will increase. This means that composting material will be managed indoors for a longer time, beyond what is required by *OMRR*. As a result, the compost that leaves the secondary building for the outdoor

compost curing air floors will have matured more than previously and mature compost is less odours. The Solvita test helps to confirm compost maturity and FRH will be required to continue to use Solvita to confirm compost maturity as a condition of the License. However, it is likely that the final compost product will still have some odour, typically described as 'musty' or 'earthy'.

The composting buildings are connected to large biofilters. These biofilters treat the odorous exhaust air from the buildings. As the biofilters are made out of wood material, they themselves will give off some odour. To ensure that the biofilters are effective and functioning as designed at all times, the License sets out biofilter monitoring parameters that must be adhered to. In addition, FRH is required to install backup generators to ensure that the odour control systems are functioning during power outages.

Grinding yard and garden waste may also cause some odour. If the yard waste material is not stored for a long time, the odours from grinding the yard waste is typically described as a mix of 'pine', 'mint', 'hay', 'lemon' and 'eucalyptus'. However, some people have found these odours offensive. To help ensure that yard and garden waste does not become unnecessarily odourous, the storage time of yard waste has been limited in the License.

Any putrescible garbage from the recycling facility or the composting facility will continue to be required to be stored inside a composting building that is equipped with a biofilter until it is hauled out for landfill disposal.

In regards to composting odours and public health, while composting odours may be unpleasant, in their 'FAQ's Regarding Industrial Composting Operations' Island Health stated that odours are not prescribed as health hazards under the Public Health Act.

In my review of FRH's application, including but not limited to the operating documents, the operations at my site inspection on May 8, 2018, the SENES report and the odour requirements set out in Permit 108536, I conclude that significant efforts have and will be made by FRH to control odours from their operations.

2.4.4 Traffic

As a result of FRH's major amendment, and similar to any growing business on Fisher Road, additional traffic is anticipated. FRH expects that the traffic increase will mostly consist of additional trucks with trailers delivering compostables the composting facility. In considering the community's traffic concerns, MoT was consulted. To minimize traffic impact at or near Cobble Hill Village, FRH is required to continue to direct traffic towards the highway.

2.4.5 Noise and Operating Hours

Based on the public comments received, the difference in the operating hours and the hours that the facility is open to the public appears to have caused confusion. The operating hours will remain the same but the hours that the facility is open to the public has been increased to include Sundays.

The operating hours will continue to be 7 a.m. to 7 p.m. Monday through Saturday and 8 a.m. to 5 p.m. on Sundays. The hours that the facility is open to the public will be Monday through Sunday, 8 a.m. to 5 p.m.

To reduce noise, FRH has replaced the diesel compost screener with an electrical screener. In addition, and as a condition of the License, diesel-powered grinding equipment may not operate on Saturdays or Sundays.

2.4.6 Materials from Other Jurisdictions

The CVRD does not have a flow control bylaw and therefore does not have the ability to regulate the receiving or shipping of waste and recyclables to private facilities in the region. FRH may receive waste and recyclables from other jurisdiction, and similarly waste and recyclables generated within this region can be shipped to processing facilities in other regions.

2.4.7 Facility Location

As the FRH facility is located in CVRD Electoral Area C, it is subject to the CVRD land use and building regulations (i.e. zoning requirements). The land use bylaw permits in-vessel composting and recycling facilities on the property.

2.4.8 Consultation Process

As set out under Section 2.3 – *Public Consultation* above, FRH has met the consultation requirements under Bylaw 2570.

2.4.9 Surface and Parcel Coverage

According to the site plan prepared by a third party surveying and engineering company, FRH adheres to the CVRD South Cowichan Zoning Bylaw No. 3520, which restricts impermeable surface and parcel coverage.

2.4.10 Impact on Property Value

Public concerns were expressed about the potential impact on the property value of neighbouring residential properties as a result of FRH's increase of material managed at their composting and recycling facility. In response to those concerns, I note that FRH's property is currently operating as a waste management facility and is zoned to permit the use and it would therefore be difficult to find any reduction in actual property values attributable to the proposed expansion of operations, without speculating. In any event, the primary focus of my review of this application under Bylaw 2570 is on risks to the environment and human health in relation to noise, odour, leachate control and ground water protection, including consideration of those potential impacts on neighbouring properties, all of which have been carefully considered.

2.4.11 Permit 108536 under the Environmental Management Act

As required by the Ministry of Environment and Climate Strategy (ENV) and the 2016 changes to *OMRR*, the FRH applied for a permit under *OMRR* in the fall of 2016. FRH's Permit 108536 was

issued by ENV on February 20, 2018. Permit 108536 sets out a number of conditions, including but not limited to odour and leachate management.

3. Conclusion

I have reviewed the comments received from the public on this application, the application documents, the odour survey report by SENES Consultants, the groundwater investigation reports by Thurber Engineering and Permit 108536 issued by ENV. I have also considered the groundwater investigation work by CHAITG, the feedback provided by Island Health, MoT and MBFD, the zoning of FRH's property and my authority under Bylaw 2570. In reviewing all this, I have aimed to determine the potential impact of the requested increase in food waste and yard and garden waste, rubble and garbage at the FRH composting and recycling facilities.

Considering how the FRH is proposing to manage the compostable material, rubble and garbage, and the conditions set out in the License, I have concluded that there is no evidence that the increase of these materials will also increase the risk to environment and public health, in particular to the groundwater. In regards to leachate and odours, the FRH is proposing to manage compostable material in a manner that prevents the escape of leachate and limits the intensity and frequency of odours. However, and as stated earlier, I do recognize that some odours will be unavoidable at times.

Considered all the factors listed in this letter, I have issued a License that allows for the increases in materials, subject to FRH's compliance with the conditions set out in their License. In some cases, the License conditions are already incorporated in the FRH operating documents or in Permit 108536, but have been incorporated into the License for clarity and enforceability.

In summary, the License includes rigorous monitoring and reporting conditions. The purpose of these conditions is to prevent risk to health and environment as well as adverse impacts on the community.

The issuance of the License does not constitute approval or assumption of liability by the CVRD for performance of works, procedures or onsite equipment associated with FRH's operations. It is the responsibility of FRH and any Qualified Professional(s) working on FRH's behalf to ensure that FRH operates to the required standard and, further, that all work and procedures are completed in accordance with all applicable laws, statutes, regulations, bylaws and codes, including CVRD Bylaw 2570.

Any changes to the License or associated document must be applied for in writing.

Inspection of FRH's composting and recycling operations will occur to ensure compliance with all aspects of the License and associated documents.

The security required under Section 6.2 of the License is due on or before June 23, 2018

Any questions in regards to this License can be directed to es@cvrd.bc.ca or 250.746.2530.

Regards,

Xauseef Waraich, Manager

Recycling & Waste Management

Attachments

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pc: Hamid Hatami, Ph.D., P.Eng., General Manager, Engineering Services Ilse Sarady, Technologist, Recycling & Waste Management

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