

Memorandum

DATE: April 9, 2015

TO: Tania Steele FROM: Eshetu Beshada, Ph.D., P.Eng.

Environmental Engineer

Municipal and Industrial Section

160 - 123 Main Street Winnipeg, Mb R3C 1A5

Ph:204 945-7023

SUBJECT: Urbanmine Inc. – Information for Public Registries

Tania,

Please find attached additional information received with respect to the Urbanmine Inc file (5684.00) for distribution to the public registries. The documents included is:

• March 4, 2015 letter with attachment from Svent T. Hombach 4 pages

4 pages total

Thank you.

Eshetu Beshada, Ph.D., P. Eng.



March 4, 2015

SVEN T. HOMBACH

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Our File Number: 427312-1/STH

FRDOCS 4792771.1

VIA EMAIL

Manitoba Conservation and Water Stewardship Environmental Stewardship Division Environmental Approvals Branch 123 Main Street, Suite 160 Winnipeg, MB R3C 1A5

Attention: Eshetu Beshada, Ph.D., P.Eng.

Dear Mr. Beshada:

Re: Urbanmine Inc. - Manitoba Conservation & Water Stewardship File 5684.00

72 Rothwell Road, Winnipeg
Response to Review Comments

Further to your correspondence of February 11, 2015, please find enclosed Dillon Consulting's responses to Manitoba Conservation & Water Stewardship's comments in respect of Dillon's December 16, 2014 Environmental Monitoring Report.

Yours truly,

FILLMORE RILEY LLP

Per:

SVEN T. HOMBACH *

*Services provided by S.T. Hombach Law Corporation

Cc: Mark Chisick, Urbanmine Inc.



Mr. Sven T. Hombach
Fillmore Riley LLP
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Winnipeg, Manitoba
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Re: Urbanmine Inc. – Environmental Monitoring Report Review, Comments Received from Manitoba Conservation and Water Stewardship on February 11, 2015 (File: 5684.00)

Privileged and Confidential

Dear Mr. Hombach:

Dillon Consulting Limited (Dillon) has reviewed and considered the comments received from Manitoba Conservation and Water Stewardship (Manitoba Conservation) on February 11, 2015. Please find clarifications enclosed in response to the outstanding technical items.

Please do not hesitate to contact me if you have any questions.

Regards,

Dillon Consulting Limited

Dennis Heinrichs, M.Sc., P.Eng.

Partner

CKL/knp

Our File: 15-1470-MC Responses

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Responses are provided in the order presented in the letter from Manitoba Conservation.

Noise Monitoring

- 1. The measured ambient noise levels corresponding to time periods when the facility was not operating are considered to be background noise. For this study, data for Saturday, October 11, 2014 and Sunday, October 12, 2014 was considered to represent background. Since the background noise levels were intended to be used for comparison with data when the facility is in operation, the time split for daytime and nighttime was set to best fit the operation schedule of the facility during the measurement period (e.g., daytime: 6:00 am 5:00 pm).
- 2. For background noise levels, average, minimum, and maximum were calculated. The minimum background noise level was considered as the representative background noise level is expected to exclude contribution from sources such as sirens, trains, and airplane flyovers.
- 3. The average $L_{\rm eq}$ values in **Table 1** are arithmetic averages of hourly $L_{\rm eq}$ values for daytime and nighttime periods. As noted above, the daytime period is in reference to the operation of the facility. It should be noted that the times indicated in the raw data (**Appendix A**) correspond to the start time for the measurement.
- 4. The purpose of the rooftop monitoring location (L1) was to (1) get a better understanding of noise propagation over the building (from noise sources in the yard) and (2) to potentially use the data to calibrate noise modelling for the site.
- 5. Not all sources at the site generate impulsive noise. For receptor noise monitoring, overall ambient noise levels (hourly sound level equivalents) are measured. Impulsive noise for the site is being assessed through acoustic modelling. Typically, a 10 dB penalty is added to the source-specific noise data in a predictive noise modelling exercise to account for impulsive aspect of noise, where applicable.
- 6. The sound was recorded during the October 10, 2014 measurement period when the site was operating. Audio recording was conducted at one of the three receptor monitoring locations (i.e., L3). The descriptions provided in **Appendix A** for Location L2 are based on a review of audio recordings from Location L3.
- 7. For the two receptor monitoring locations along the fence line (i.e., L2 and L3), the microphones were placed at 3 to 5 metres from the wooden fence (closer to the facility) to minimize impact from the fence. This is considered to conservatively represent receptor noise exposure.

Vibration Monitoring

No clarifications were required.

Particulate Monitoring

1. The Environment Canada reference for data completeness is associated with the determining of the validity of data for inclusion in the determination of air quality indicators as part of the National Air Pollution Surveillance (NAPS) program. The intent of this initial sampling program at Urbanmine was to determine whether there is any indication that airborne particulate concentrations were elevated and warranted further study. The intent was not to collect data using the methodologies or rigorous QA/QC procedures established for the NAPS program. Certainly the intent was to collect samples over a full 24-hour period; however, the fact that some of the results are based on sampling periods of less than 18 or 24 hours does not render the assessment meaningless. The results for those samples collected over shorter sampling periods may be deemed to have a higher degree of uncertainty; however, this becomes relevant only when results are approaching the air quality limit being assessed against. For this initial sampling program, the particulate matter results representing concentrations at the facility's property line were less than one-quarter of Manitoba's Maximum Acceptable Level concentration of 120 µg/m³.

If we were to exclude samples collected over periods of less than 18 hours, the assessment findings do not change, i.e., there is no discernable difference in those results representing fence line concentrations, which average 15 μ g/m³, and those representing background concentrations (12 μ g/m³).

- 2. The rationale for deeming two of the samples as representative of background was included in the report. The rationale was that since the sampling time during production activities represented less than 5% of the total sample time, these samples results were deemed to be more representative of periods of non-production, which we have equated to represent ambient background levels for the area.
- 3. The sampling technique for the particulate sampling at Urbanmine most closely resembles US EPA Method IO-2.3 found in the document "Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air." Our sampling technique included deviations from this method in terms of the samplers used and the fact we did not differentiate PM₁₀ from total particulate. This method specifies a sample rate of 16.7 litres per minute (the sample rate is critical when sampling for specific particle sizes, e.g., PM₁₀) and the use of 47 mm filters. The Gillian samplers have a suitable range of sample rates (2 to 30 litres per minute) for use with the 47 mm filters selected for this sampling program. These samplers are suitable for both indoor and outdoor use.