

Public Advisory Committee

Minutes from PAC Meeting #32

LYSTEK SOUTHGATE ORGANIC MATERIALS RECOVERY CENTRE

Thursday, December 17, 2020

TIME: 7 pm

LOCATION: Skype Video Conference Call

ATTENDEES:

Interim Chairs: John Woodbury (Southgate Mayor) & David Milliner (Southgate CAO)

Members: Sherifa Carmicheal, Christina Rittwage, Michael Sherson (Southgate Councillor)

Lystek: Simon Meulendyk, Adrienne Van Dyk

Regrets: David Hiscock, Connie Hiscock. Steve Redmond (Chair).

AGENDA TOPICS:

Item	Description	Action By
1.	Welcome A spring PAC Meeting was not held. Initially delayed, due to the COVID-19 pandemic, it was decided to move the meeting to a video conference format. Unfortunately shortly thereafter, our chair, Steve Redmond, fell ill and was unable to fill his duties for our PAC. It is unclear when he will be able to return. Mayor John Woodbury and CAO David Milliner kindly assisted by being our Interim Chairs for the short term. This meeting is from a rescheduled one as a previously planned meeting for November 26 th could not take place due to a lack of membership attendance.	Simon
2.	Review of previous meeting minutes Simon provided a review of the minutes from the November 2019 PAC meeting.	Accepted by consent via email within two weeks of last meeting
3.	Approval of Agenda	Moved by Sherifa C. Seconded by Christina R.
4.	Public and Media Attendance – Re: Question Period and Code of Conduct	No media/public attendance

5.

Operations Update – Simon Meulendyk

The OMRC continues to operate with 2-3 shifts per day. 2020 has been another consistent year of operation for the facility. Reliably maintained contracts signed with various new municipalities & customers has created a consistent incoming stream of material for processing. The facility typically receives larger incoming volumes in the winter months. The summer months, although less busy with incoming volume, is occupied by the LysteGro fertilizer land application program. This allows for the maintenance of year-round regular work hours for the 10 employees and, we are currently seeking to add one additional staff member.

The Southgate OMRC expanded the services it can provide to its inbound liquid volume customers by purchasing its first truck and trailer for hauling from third-party sites to the Southgate OMRC. Dan Faubert was hired as a driver. The equipment will be predominantly operating under the recently secured contract with the Town of Orangeville.

Michael Sherson inquired if material has ever been rejected at the site. Simon stated various material inquiries have been rejected as the materials exceed heavy metal concentration requirements, are too low in nutrient values and/or have potential contamination that may compromise plant equipment. Of the material inquiries that are accepted, no material has been rejected once the customer has been accepted to the site. The materials shipped to the site by generators is very consistent. Once the material passes the initial screening, we have not had any cases where the ongoing monitoring has shown concentrations not meeting our requirements.

A summary of incoming material for the previous four quarters can be found at the end of the minutes.

	<p>Land Application:</p> <p>It has been another record year for land application of LysteGro. The outgoing volume was approximately 135,000 cubic meters (m³) compared with 120,000 m³ in 2019 – and applied to approximately 8,000 acres of farmland. 2020 had an earlier spring compared to previous years allowing for consistent land application to begin in April. There continues to be reliable demand for hay ground applications and abundant interest for application after crops are harvested. The program ceased for the year in the second week of December due to inclement weather. It is anticipated the program will resume in April 2021, weather permitting.</p> <p>2020 Trial:</p> <p>With the uncertainty of COVID-19, no field trials were completed in 2020.</p> <p>Environmental Compliance Approval (ECA):</p> <p>Lystek received approval of its Air ECA amendment submitted June 2019. The ECA amendment was in regard to the additional air treatment stage for the reservoir storage installed in the summer of 2018. A follow-up requirement was to complete a supplementary Source Test by a Third Party to assure the Lystek provided data was accurate. The Source Test was completed this fall, and has been submitted to the MECP. Lab results indicate the air stream is in compliance and no further testing or modelling will be required.</p>
6.	<p>Community Concerns</p> <p>Odour Observations:</p> <p>Members shared that odour complaints received by the MECP, township or Lystek directly. Occasional odour observations were noted early in 2020 but the latter portion of the year the observations have subsided. Michael Sherson noted to early year observations, the present odours would ‘come and go’ and would not stay in a specific area. Dave Milliner confirmed the Township has not received any recent odour complaints related to Lystek. An odour complaint to the Township in December was confirmed to originate from hog manure spreading.</p> <p>The members discussed methods of notifying about odours in real-time. If after-hours, messages to the MECP will not be provided attention until the next business day morning. By this time, the potential odour source has typically left. Suggestions made were links on the Lystek website or a number to dial if a member in the community makes an odour observation. Simon noted that there is a Southgate OMRC email (southgateomrc@lystek.com) that can be easily found on the company website and a 24-hour site number (519.923.3539).</p>

7.	<p>Product Monitoring Reports - Simon</p> <p>The PAC reviewed the monthly stored product monitoring reports as well as the fertilizer composition sheet provided to customers. <i>(attached to PAC minutes)</i>.</p> <ul style="list-style-type: none"> - The monitoring reports continue to demonstrate pathogen counts that are consistently below detection limits in the processed biosolids. - Heavy Metal concentrations are reliably below the regulatory Maximum Allowable Concentration levels. - The nutrient composition levels are of great value to the customers. LysteGro is dependably dense in NPK. Simon explained the benefit of the product's ability to slow release nutrients over the course of the season and subsequent years. 		
8.	<p>New Business:</p> <ol style="list-style-type: none"> 1. Sherifa, a former guest attendee to the meetings, has read, signed and subsequently joined the PAC. Welcome Sherifa. 2. The current PAC Terms of Reference prescribe two meetings a year (organized for spring and fall). The difficulty to plan a spring meeting provided reflection that the one meeting was suitable in providing a one-time annual review of the site. The members were in agreement, and Simon will bring forward the proposition with the MECP. 3. If it is evident that Steve is unable to continue his responsibilities as chair in 2021, a new chair will need to be secured. Simon will continue to be contact with the Redmond family over the course of winter. 		
9.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; padding: 5px;"> <p>Action Items:</p> <ol style="list-style-type: none"> 1. Potential new committee chair search. 2. Once approval received from MECP, update Terms of Reference to one meeting per year. </td> <td style="width: 40%; padding: 5px; vertical-align: top;"> <p>Simon</p> </td> </tr> </table>	<p>Action Items:</p> <ol style="list-style-type: none"> 1. Potential new committee chair search. 2. Once approval received from MECP, update Terms of Reference to one meeting per year. 	<p>Simon</p>
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	Next meeting is planned for Thursday, November 25, 2021 at 7 PM pending MECP approval of one meeting per year. Location TBD depending on state of COVID-19 pandemic.	
	Adjourn Meeting	Moved by Christina R.

Incoming Material Summary		
Type	Volume (trucks) per day	Municipality
Cake (solid)	5-6	Toronto, Guelph, Muskoka (Huntsville and Gravenhurst), Hamilton, Halton, Kitchener/Waterloo, Peel
Liquid	2-3	Orangeville, Durham, Arthur, LCBO, Mono, Fergus, Shelburne

Attachments:

- *Monitoring Report for 2020 LysteGro fertilizer and LysteGro fertilizer Composition Sheet.*

The Southgate OMRC PAC is a condition of the MECP's Environmental Compliance Approval to create an open flow of information to residents about the biosolids processing centre in Dundalk.

Members of the PAC meet twice each year, or more often if deemed necessary. Currently, there are three volunteer community members and a chairperson on the committee. Members of the PAC include:

- *David & Connie Hiscock, residents of Dundalk*
- *Christina Rittwage, resident of Dundalk*
- *Sherifa Carmicheal, resident of Dundalk*
- *Michael Sherson, a Township of Southgate Councillor*
- *The committee is chaired by Stephen Redmond. He is a certified crop advisor, a former Environmental Specialist with OMAFRA and former resident of Southgate.*

Stored Product Analysis
2020



Lystek Southgate Organic Materials Recovery Centre (OMRC)
191 Eco Park Way, Dundalk, Ontario

Constituent	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Average	Maximum Allowable Concentration ^a	Units
Metals															
Arsenic	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			BDL	170	mg/kg
Cadmium	2.45	2.84	1.76	2.81	0.85	1.12	1.06	0.63	2.15	3.03			1.87	34	mg/kg
Cobalt	4.20	6.58	5.06	5.32	5.91	5.53	5.15	4.95	5.27	5.11			5.31	2,800	mg/kg
Chromium	72.65	83.35	80.60	78.15	74.95	75.60	78.55	72.85	73.40	65.85			75.60	340	mg/kg
Copper	642.50	493.90	690.50	667.50	673.50	673.50	658.50	680.50	761.00	733.50			667.49	1,700	mg/kg
Mercury	0.80	0.60	0.70	0.50	0.60	0.50	0.50	0.50	0.50	0.40			0.56	1,100	mg/kg
Molybdenum	11.30	16.50	12.30	12.80	14.70	15.10	13.80	13.20	14.50	12.60			13.68	11	mg/kg
Nickel	27.65	38.93	29.26	28.59	30.11	32.65	33.04	26.20	26.35	27.59			30.04	94	mg/kg
Lead	67.00	38.00	30.43	30.17	36.17	34.00	29.38	26.41	30.00	26.00			34.76	420	mg/kg
Selenium	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			BDL	34	mg/kg
Zinc	749.50	887.00	845.00	868.50	827.00	844.00	831.00	762.50	874.00	806.00			829.45	4,200	mg/kg
Nutrients and Physical Properties															
Total Solids	11.37	10.16	10.69	10.69	10.67	10.63	10.63	10.67	11.23	11.05			10.78	n/a	%
Volatile Solids	5.51	5.42	5.96	5.72	5.79	5.62	5.90	6.23	6.52	6.26			5.89	n/a	%
Total Organic Carbon	269,200	296,100	309,600	297,100	301,600	293,500	308,300	308,200	324,100	314,800			302,250	n/a	mg/kg
Total Kjeldahl Nitrogen	47,200	56,700	57,500	60,900	56,300	56,900	59,000	54,700	55,700	58,500			56,340	n/a	mg/kg
Ammonium - N	22,522	28,000	28,821	31,440	29,350	30,205	30,230	27,735	27,239	30,836			28,638	n/a	mg/kg
Nitrate and Nitrite-N	12.56	8.70	12.74	4.14	11.44	7.08	8.32	1.51	7.14	5.00			7.86	n/a	mg/kg
Total Potassium	16,000	19,000	16,100	16,700	15,900	15,100	16,600	15,400	14,800	13,000			15,860	n/a	mg/kg
Total Phosphorus	27,400	37,900	35,700	32,200	35,900	40,600	39,500	42,100	33,400	40,700			36,540	n/a	mg/kg
Pathogens															
Fecal Coliforms	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8			n/a	<1000	MPN/g
Salmonella	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG	NEG			n/a	<1	CFU/25g

^a As per Section 14.2 of Environmental Compliance Approval No. 8850-8V6S7Z

Note - Each sample collected consists of a minimum of 1 grab sample collected directly from the discharge point of the process reactor.

Note - Analysis completed by A&L Canada Laboratories Inc.

n/a - not available

ND - Not detected

NEG - negative



LysteGro Fertilizer Composition

	LysteGro Average ^a	Maximum Allowable Concentration ^b	Units
Organic Matter Content	5.69		% on a wet weight basis
Total Organic Carbon	3.31		% on a wet weight basis
Total Nutrient Content			
Total Nitrogen (TKN)	5.59		% on a dry weight basis
Total Available Nitrogen (Ammonium + Nitrate)	2.78		% on a dry weight basis
Total Phosphorus (P ₂ O ₅)	8.45		% on a dry weight basis
Total Potassium (K ₂ O)	2.00		% on a dry weight basis
Metals Regulated by MOE			
Arsenic	BDL	170	mg/kg
Cadmium	1.79	34	mg/kg
Cobalt	5.23	340	mg/kg
Chromium	74.78	2,800	mg/kg
Copper	666.81	1,700	mg/kg
Mercury	0.56	11	mg/kg
Molybdenum	13.70	94	mg/kg
Nickel	29.55	420	mg/kg
Lead	33.87	1,100	mg/kg
Selenium	BDL	34	mg/kg
Zinc	821.82	4,200	mg/kg
Relevant Micronutrients			
Calcium	44.08		lbs/1,000 gallons
Copper	0.73		lbs/1,000 gallons
Iron	93.83		lbs/1,000 gallons
Magnesium	7.29		lbs/1,000 gallons
Manganese	0.48		lbs/1,000 gallons
Selenium	BDL		lbs/1,000 gallons
Sulphur	18.20		lbs/1,000 gallons
Zinc	0.90		lbs/1,000 gallons
Total and Available Nutrients (during 1st growing season) - Imperial			
Total Nitrogen	60.87		lbs/1,000 gallons
Total Available Nitrogen ^c	42.54		lbs/1,000 gallons
Total Phosphorus (P ₂ O ₅)	92.06		lbs/1,000 gallons
Total Available Phosphorus (P ₂ O ₅) ^d	36.83		lbs/1,000 gallons
Total Potassium (K ₂ O)	20.24		lbs/1,000 gallons
Total Available Potassium (K ₂ O) ^e	18.21		lbs/1,000 gallons
Pathogens			
Fecal coliform	<1.8 ^f		MPN/g(mL)
Salmonella spp.	NEG ^f		P-A/25g(mL)

^a Values represent the mean of samples collected on a monthly basis from January to November 2020

^b As per Ontario Regulation 338/09, Schedule 5

^c The sum of Ammonium + Nitrate + assume 40% mineralization of Organic Nitrogen during first growing season

^d Assume 40 % availability of Phosphorus

^e Assume 90% availability of Potassium during first growing season

^f Results were consistent for all sampling events

BDL - Below Detectable Limit