

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPOSER: Airfield Organics Ltd.
PROPOSAL NAME: Organic Composting Facility
CLASS OF DEVELOPMENT: One
TYPE OF DEVELOPMENT: Manufacturing – Bulk Materials Handling Facilities
CLIENT FILE NO.: 5390.00

OVERVIEW:

The Proposal was received on February 20, 2009. It was dated February 13, 2009. The advertisement of the proposal was as follows:

“A Proposal has been filed by Samson Engineering Inc. on behalf of Airfield Organics Ltd. for the operation of a composting facility on W 7-11-17W and E 12-11-18W, approximately 10 km south of Justice in the Rural Municipality of Elton. The operation would compost straw, manure and wood shavings from trucks delivering hogs to the Maple Leaf plant at Brandon and the Springhill Farms plant at Neepawa, along with centrifuged sludge from the wastewater treatment systems from both plants. This material would be composted between April and October of each year, and the resulting compost would be applied to adjacent fields each fall in accordance with soil test recommendations. Operation of the facility would commence in the summer of 2009.”

The Proposal was advertised in the Brandon Sun on March 7 2009. It was placed in the Main, Millennium Public Library, Eco-Network and Western Manitoba Regional Library (Brandon) public registries. The Proposal was distributed to Technical Advisory Committee (TAC) members on March 2, 2009. The closing date for comments from members of the public and TAC members was April 16, 2009.

COMMENTS FROM THE PUBLIC:

Ben Neufeld

I would just like to say that I completely endorse any composting facility in Manitoba. I wish we would have municipal composting facilities all across the province! It's about time that we start doing what every other species on the face of the earth has been doing for millions of years, and compost our wastes so that it enriches our soils instead of polluting our soils and waters! If you've never read it, I would highly HIGHLY recommend the book "The Humanure Handbook" as a must have resource to learn more about this eco-friendly endeavor (<http://www.jenkinspublishing.com/humanure.html>)

RM of Elton

Council of the Rural Municipality discussed the application for Airfield Organics Ltd. (File 5390.00) as filed by Samson Engineering Inc., and passed Resolution No. 2009-97 at their April 13, 2009 meeting which reads as follows:

RESOLUTION NO. 2009-97

APRIL 13, 2009

Moved by Councillor....."FARLEY"

Seconded by Councillor....."PENNER"

BE IT RESOLVED THAT COUNCIL OF THE RURAL MUNICIPALITY OF ELTON HEREBY REGISTER CONCERNS WITH MANITOBA ENVIRONMENT REGARDING THE PROPOSAL BY AIRFIELD ORGANICS LTD. – ORGANICS COMPOSTING FACILITY (FILE 5390.00) RELATING TO USE OF MUNICIPAL ROAD SURFACES BY REQUESTING:

- 1) THAT THE PROPONENT BE REQUIRED TO SUBMIT THEIR HAUL ROUTE PLAN TO THE MUNICIPALITY NOT LATER THAN TWO WEEKS PRIOR TO HAULING OF MATERIALS;
- 2) THAT THE PROPONENT UNDERTAKE NOT TO HAUL ON ROADS IF IN UNSUITABLE CONDITIONS DUE TO INCLEMENT WEATHER; AND
- 3) THAT THE PROPONENT UNDERTAKE TO RETURN ALL ROAD SURFACES USED TO THE CONDITION IN WHICH THEY WERE FOUND PRIOR TO HAULING OR TO REIMBURSE THE MUNICIPALITY FOR REPAIRS THAT MAY BE REQUIRED DUE TO HAULING OF PRODUCTS; AND
- 4) HAUL ROUTE TO USE PR ROADS WHENEVER POSSIBLE.

	FOR	-	CARRIED	AGAINST
	7	-	0	0
ABSTAINED FROM VOTING		-		0

CHAIRMAN....."J BURTON"

I, Kathleen E. I. Steele, Chief Administrative Officer for the Rural Municipality of Elton, hereby certify the above to be a true and correct copy of **Resolution No. 2009-97** as passed by Council of the Rural Municipality of Elton in session assembled on the 13th day of April, A.D. 2009.

Disposition:

Comments were forwarded to the proponent for response. The proponent sent a response letter to the R.M. of Elton on June 24, 2009.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Environmental Assessment and Licensing Branch

1. Peptone and blow juice are mentioned on page 14 of the proposal with no description or explanation. What are these products and how do they affect the process described? Do they require different handling than the straw, manure, wood shavings and dewatered sludge?

2. The proposal mentions a liquid tanker truck on page 22 and liquid injection equipment on page 24. These items are not mentioned in the process description elsewhere in the proposal. What is their purpose in the operation? The compost feedstock and product is apparently all solid or semi-solid material.
3. The Draft Manitoba Compost Facility Guidelines recommend that composting areas be underlain by a minimum of 0.5 m of clay material having a permeability of less than 1×10^{-7} cm/sec or equivalent synthetic or constructed liner. Page 5 of the proposal indicates that permeability beneath the development site ranges from 0.5 - 5.0 cm/hr (1.39×10^{-4} - 1.39×10^{-3} cm/sec), and there is no existing liner, nor plans in the proposal to add a liner. What is the justification for this?

Disposition:

Comments were forwarded to the proponent for response.

Sustainable Resource & Policy Management Branch

No concerns.

Parks and Natural Areas Branch

No comments.

Pollution Prevention Branch

Composting of organic wastes results in the formation of products that affect air quality such as: ammonium; NO_x; methane, and of other potential harmful organic compounds. Odours are typically generated as well.

Odour: Odour is often the most noticeable air quality concern. Most organic wastes will generate some foul odour during the composting process. Foul odour increases when the composting material is allowed to become anaerobic.

Ammonia (NH₃): Ammonia acidifies rain and causes foul odours. Ammonia loss is inevitable in most composting facilities. However, those with low C:N ratios wastes will result in the greatest ammonia losses. The smell of ammonia is an indicator that nitrogen is in excess.

Nitrous Oxide and Other NO_x Gases: During intense microbial activity, as occurs in the compost process, there is significant loss of nitrogen as nitrous oxide and other NO_x gases, particularly nitric oxide (NO) and thus contributes to global warming. NO_x is also a precursor to the formation of ground level ozone.

Methane (CH₄): It is expected that diversion of organic wastes away from landfills will reduce the production of anthropogenic methane. However, if anaerobic decomposition occurs during composting, substantial amount of greenhouse gas (methane) will be produced.

While the proposed composting process is discussed in the submitted document, the proponent should consider refining the process as the situation dictates. Examples, (1) the turning of the wind rows may be more frequent than planned if odour is detected, (2) If ammonia odour is detected, nitrogen in the mixture is in excess and should be addressed. It is important to note that the process should be aerobic to minimize the above impact hence any indication that anaerobic process is occurring, it should be addressed immediately.

In addition consideration should be given to ensuring that the proposal takes into account any new proposed amendments to the OWMS regulation, where the province is proposing to prohibit the use of disposal fields in environmentally sensitive areas, prohibit the installation of new sewage ejectors throughout the province and force the replacement of old ejectors with disposal

fields and holding tanks when property changes hands. Proposed amendments may impact current practices re applying organics to fields. I am not aware if the location would be deemed an environmentally sensitive area or not.

Attached documents:

- 1996 draft composting bulletin identifying a number of measures/processes for composting facilities that should be taken into consideration
- draft composting facility guidelines as prepared by KGS Consulting - should be also be referred to
- Federal requirements of compost under the Fertilizers Act and Regulations
- CCME Guidelines for Composting Quality.

Disposition:

Comments can be addressed via licence conditions and were forwarded to the proponent for information.

Western Regional Operations Office in Brandon

-What is the estimated ratio of straw/manure to DAF sludge per load from Maple Leaf and Springhill?

-Brandon waste disposal ground has had issues with the consistency of DAF sludge they have been receiving from Maple Leaf. What plans does the proponent have to deal with loads of DAF sludge that are very wet? In terms of both handling (i.e. potential leakage during transport, who will be responsible) and onsite handling on the treatment pad? Is there a plan for berming the windrows if needed?

-More detailed information should be submitted with respect to the groundwater monitoring program. I am not aware of the nature of the monitoring wells that are present on the site. Are the 2 wells sufficient to monitor for any groundwater impacts? Are well installation logs available?

-If impacted water runs off the treatment pad, can it be effectively contained in the west ditch and irrigated onto the compost windrows? Is this ditch lined in any way? Are their contingency plans if there is too much runoff water to irrigate?

-A copy of the contingency plan for odour control should be provided for review

-MAFRI should be consulted regarding the injection of peptone and blow juice waste streams for any potential issues they have

Disposition:

Comments were forwarded to the proponent for response.

Environmental Services Branch

1. There is no indication of any evaluation of the structural integrity of the asphalt, ie are there cracks of any significance in the asphalt which would allow leachate, impacted rainwater etc to permeate into the subsurface?
2. We are in favor of the addition of the berms along the edges of the runways to prevent leachate or impacted water from leaving the edges of the asphalt, as recommended by Manitoba Water Stewardship (please provide a copy of the sketch referenced in the May 8, 2009 letter).
3. We recommend construction of a leachate &/or stormwater drainage pond(s) that incorporate a total site drainage plan which should be included in the as-built drawings for the facility; along with the calculations for determining the size of the pond(s).

4. Due to the addition of wetter feedstock (DAF & WAS material), is there a contingency plan if the composting materials get too wet for aerobic decomposition? I.e. leachate drainage over the asphalt directed to the collection area noted in 2. above?
5. How are the haul trucks to be cleaned/sanitized? If at the site, there will need to be provisions in place for wastewater storage until application on the windrows, if applicable.
6. Is there provisions in place and location available for storage of the compost in the event of an excess for land application, inaccessibility of application fields or in the need for curing the compost past the October planned application time?
7. There are restrictions to the timing of spreading of manure on crop lands in the *Livestock Manure & Mortalities Management Regulation* i.e. no winter spreading section 14, can these types of restrictions be included as a license requirement?
8. In the event of a spill (while transporting) the reportable amount as per the *Livestock Manure & Mortalities Management Regulation* is identified in sections 9&10 as 0.25m³ clause 18 & 19 of the draft license do not define the volume of a reportable spill.
9. How does the reporting structure for this license impact/affect the reporting requirements of the Maple Leaf license 2311 S2 4R?

Disposition:

Comments were received late. Some comments were forwarded to the proponent for response. Some comments can be addressed via licence conditions.

Manitoba Water Stewardship

- *The Water Rights Act* indicates that no person shall control water or construct, establish or maintain any “water control works” unless he or she holds a valid licence to do so. “Water control works” are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If a proposal advocates any of the aforementioned activities, an application for a Water Rights Licence to Construct Water Control Works is required. Application forms are available from any office of Manitoba Water Stewardship.
- The proponent needs to be informed that if the proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.
- The Department may provide comments pertaining to hazard lands at a later date. Currently, the Department’s hazard land personnel are seconded to the emergency flood coordination efforts.
- A functioning riparian area of undisturbed native vegetation helps stabilize banks, provides aquatic and wildlife habitat and protects water quality. In circumstances where native vegetation is limited or absent, re-establishment of this vegetation should occur through natural succession or assisted through planting of vegetation native to the area.
- The Department recommends an *Environment Act* Licence to include the following requirements:

- In order to protect riparian areas, establish and maintain an undisturbed native vegetation area located upslope from the ordinary high water mark and adjacent to all waterbodies and waterways connected to the provincial surface water network:
 - A 15-metre undisturbed native vegetation area is recommended for lands located adjacent to first and/or second order drains;
 - A 30-metre undisturbed native vegetation area is recommended for lands located adjacent to third and/or higher order drains and/or waterbodies;
 - Alteration within this undisturbed native vegetation area is limited to a maximum of 25 % of the shoreline length (for example: 25 metres per 100 metres of shoreline length) of each lot for a boat house, path, dock, etc.; and,
 - Alteration within this undisturbed native vegetation area (including the removal of near shore or stream aquatic habitat) shall not occur unless an activity conforms to a Department of Fisheries and Oceans Canada Operational Statement or an activity is reviewed by the Department of Fisheries and Oceans Canada.
- Although the proposal discusses stormwater management and containment of runoff from the composting site, it is unclear as to the capacity of this site to hold back runoff. The containment should be designed to prevent runoff from this site during significant rainfall events. Spring runoff water management also needs to be addressed in this proposal. The aerial photograph clearly illustrates the proximity of several small streams/drains in the areas adjacent to the composting site. Measures need to be employed to ensure nutrient and pathogen rich water does not leave the property during rainfall and spring runoff events.
- Once the compost has been produced, the proponent indicates that they will be applying the material on adjacent farmland at agronomic rates suited to cereal and oilseed crops. A total of 1600 acres has been referenced (setbacks excluded) in addition to the 640 acre site itself.
- The *Nutrient Management Regulation* requires a three metre setback be observed adjacent to third order drains (Nutrient Buffer Zone- NBZ). The application of nitrogen or phosphorus is prohibited within the Nutrient Buffer Zone. Third order drains exist on the following parcels:
 - S½ 13-11-18WPM
 - E½ 7-11-17WPM
 - S½ 18-11-17WPM
 - NW¼ 20-11-17WPM
 - SE¼ 29-11-17WPM
 - S½ 32-11-17WPM
- The *Nutrient Management Regulation* regulates the land application of substances containing nitrogen or phosphorus in various Nutrient Management Zones. Nutrient Management Zones are based on the agriculture capability (Canada Land Inventory) land classification system. Table 1 references the Nutrient Management Zones found within the various parcels

of land that compost will be applied. The *Nutrient Management Regulation* regulates the nitrate-nitrogen limits and phosphorus application rates as a function of soil test phosphorus for the various Nutrient Management Zones.

- Effective January 1, 2011, a Nutrient Management Plan must be registered with Manitoba Water Stewardship if:
 - Nutrients will be applied to any field that exceeds the residual soil nitrate-nitrogen limits listed in Table 1 for Nutrient Management Zones N1, N2 and N3.
 - Nutrients will be applied to any field resulting in soil test phosphorus measuring 60 ppm or more within Nutrient Management Zones N1, N2 and N3 and the phosphorus application rates listed in Table 1 cannot be met.
- In addition, compost cannot be applied to land between November 10 of one year and April 10 of the following year effective January 1, 2011 for Nutrient Management Zones N1, N2 and N3.
- The Department requests a report of the quarterly water quality monitoring results since this operation has been in effect.
 - The Department recommends that an *Environment Act* Licence requires water quality monitoring.
- Table 1. Nutrient Management Zones.

Legal Land Description Nutrient Management Zones (NMZ)

E½ 12-11-18WPM	NMZ 1
W½ 7-11-17WPM	NMZ 1, NMZ 2 and NMZ 3
S½ 13-11-18WPM	NMZ 1 and NBZ
S½ 32-11-17WPM	NMZ 1, NMZ 3 and NBZ
E½ 7-11-17WPM	NMZ 1, NMZ 2, NMZ 3 and NBZ
S½ 18-11-17WPM	NMZ 1, NMZ 2, NMZ 3 and NBZ
NW¼ 20-11-17WPM	NMZ 1 and NBZ
SE¼ 29-11-17WPM	NMZ 1 and NBZ

Disposition:

Comments regarding discusses stormwater management and containment of runoff were forwarded to the proponent for response. Some comments can be addressed via licence conditions. Some comments were forwarded to the proponent for information.

Historic Resources Branch

No concerns.

If at any time however, significant heritage resources are recorded in association with these lands during development, the Historic Resources Branch may require that an acceptable heritage resource management strategy be implemented by the developer to mitigate the affects of development on the heritage resources.

Disposition:

Comments were forwarded to the proponent for information.

Energy, Climate Change and Green Strategy Initiatives

No concerns.

Manitoba Infrastructure and Transportation

No concerns.

Intergovernmental Affairs

The proposed Airfield Organics Ltd. is located in the R.M. of Elton on East 1/2 12-11-18W and the west 1/2 of 7-11-17W, with other lands in the vicinity used for spreading. This land is designated "Agricultural" in the Brandon and Area Planning District Development Plan and zoned "AG160" Agricultural General Zone in the R.M. of Elton Zoning By-law.

According to these documents this type of agro-industrial use is allowed on this site as a conditional use provided it is in an area that is not susceptible to groundwater contamination risk and will be compatible with other nearby developments.

There are a number of streams in the bordering the production area and running through the spread lands that should be considered with respect to risk and protection measures.

There is 1 small 5 acre rural residence located in the SE of section 7-11-17W that does not seem to be considered in the environmental report. It is located immediately east of the windrows of the production area. Possibly this residence should be considered with respect to odour compatibility and pollutants to nearby air and water.

If these issues can be satisfied within the parameters of the proposed project, then our office has no further concerns.

Disposition:

Comments can be addressed via licence conditions. SE 7-11-17W is owned by Airfield Farms Ltd.

Medical Officer of Health – Assiniboine and Brandon RHAs

Inclusion in the Environment License of the proposed environmental management practices as per section 4.7 of the proposal should prevent or mitigate potential impacts through surface/groundwater sampling, leachate collection and an odor nuisance clause.

Canadian Environmental Assessment Agency

I have undertaken a survey of federal departments with respect to determining interest in the project noted above. I can confirm that the project information that was provided has been reviewed by all federal departments with a potential interest. Based on the responses to the survey, application of the *Canadian Environmental Assessment Act (CEAA)* will be not required for this project.

ADDITIONAL INFORMATION:

Additional information was requested in a letter on April 27, 2009.

A satisfactory response was dated and received on May 14, 2009, including the following:

- Letter from the proponent addressing TAC concerns (attached);
- Letter from Water Control Works and Drainage Licencing Section, Manitoba Water Stewardship to the proponent addressing site drainage and runoff containment (attached); and

- Photos of the site.

Clay samples were taken from three boreholes, one each adjacent to the east, west, and north asphalt runways, and tested for hydroconductivity. The final values were 3.2×10^{-8} cm/sec, 1.5×10^{-7} cm/sec, and 1.2×10^{-7} cm/sec. Results were dated June 17, 2009, and received on June 19, 2009.

The proponent sent a response letter to the R.M. of Elton on June 24, 2009.

Other additional information was requested via email on June 25, 2009.

A satisfactory response was dated and received on July 10, 2009 (attached).

PUBLIC HEARING:

No requests were received for a public hearing. Accordingly, a public hearing is not recommended.

RECOMMENDATION:

All provincial comments received on the Proposal can be addressed as licence conditions, or have been forwarded to the Applicant's representative for information. Therefore, it is recommended that the Development be licensed under The Environment Act subject to the limits, terms and conditions as described on the attached Draft Environment Act Licence. It is further recommended that enforcement of the Licence be assigned to the Western Region.

PREPARED BY:

Holly Poklitar

Environmental Assessment and Licensing - Environmental Land Use Section

June 15, 2009; Updated July 6, 2009

Telephone: (204) 945-8702 Fax: (204) 945-5229

E-mail: holly.poklitar@gov.mb.ca



SAMSON ENGINEERING INC.

162 - 10TH STREET, BRANDON, MANITOBA, R7A 4E8
 PH: (204) 727-0747 FAX: (204) 725-9870

May 14, 2009

Manitoba Conservation
 Environmental Stewardship Division
 Environmental Assessment and Licensing Branch
 123 Main Street, Suite 160
 Winnipeg, Manitoba
 R3C 1A5

Attention: Holly Poklitar, Environmental Officer

Reference: Airfield Organics Ltd. File 5390.00

Subject: Response to Technical Advisory Committee Comments

Dear Holly:

I am writing in response to the request for additional information that was identified by the members of the standing Technical Advisory Committee in your letter of April 27th, 2009.

The following information is in support of the Environmental Act Proposal (EAP) submitted on behalf of Airfield Organics Ltd. and in response to the requests in your letter, specifically;

1. Peptone and blow juice are mentioned on page 14 of the proposal ...

This section is to be removed. Peptone and blow juice were being considered for inclusion in the initial draft of the Environmental Act Proposal (EAP) but it was later decided by the parties to exclude them. I apologize for this oversight.

2. The proposal mentions a liquid tanker on page 22, and liquid injection equipment on page 24 ...

This section is to be removed. Peptone and blow juice were being considered for inclusion in the initial draft of the Environmental Act Proposal (EAP) but it was later decided by the parties to exclude them. This is why liquid handling equipment was mentioned. I apologize for this oversight.

3. Soil Permeability

The composting pad consists of asphalt that was laid in the early 1940's for use as airstrip runways for the planes that were being flown by World War 2 air force pilot trainees.

As per your verbal request on May 11th, a site excavation was performed on May 12th, 2009 to determine the soil profile under the composting pad. It revealed that the asphalt is 3 inches thick and has a gravel base of 6 inches underneath. Yellow clay is present 20 inches below the surface. Photos are attached to illustrate the condition of the asphalt surface and the profile of the runway and underlying material.

Also, as per your verbal request on May 11th to obtain clay samples to determine grain size analysis and hydroconductivity, a second excavation to obtain 3 down gradient representative samples of the underlying clay will take place on May 19th because the clay was still frozen on May 12th. The 3 sites being excavated for sampling are on the east side of the east runway, the west side of the west runway and the south side of the north runway. The testing is being performed by Eng-Tech Consulting and the results will be ready by the beginning of June, 2009 and will be forwarded to Manitoba Conservation.

The surrounding land and the composting pad are underlain by upwards to 30 meters of Carrol Clay loam. There is no composting being proposed to be performed on any bare ground at the site.

4. What is the estimated ratio of straw/manure to DAF sludge per load from Maple Leaf and Springhill?

The estimated ratio of straw /manure to DAF sludge is 2:1 by volume.

5. Brandon waste disposal ground has had issues with the consistency of the sludge being too wet ...

The transportation plan is to fill the bottom third of the trailer with straw, manure and wood shavings, then fill another third of the trailer with de-watered DAF sludge and finally fill the last third of the trailer with straw, manure and wood shavings again. This will complement the mechanical means the trailers will have in preventing any leakage during transportation. The addition of the straw, manure and wood shavings will also address any potential wetness problem on the treatment pad at the composting site.

We propose to berm the asphalt composting pad to prevent any surface water from entering the composting site as well preventing any excess moisture from leaving the composting pad.

6. More detailed information should be submitted with respect to the groundwater monitoring program. Are the 2 wells sufficient to monitor for any groundwater impacts? Are the installation logs available?

There are no installation logs available from the fall of 2001 when the two groundwater monitoring wells were installed. We were instructed by Manitoba Conservation to install an up-gradient and a down-gradient groundwater monitoring wells for the quarterly monitoring of groundwater. An annual report is forwarded to Maple Leaf Consumer Foods, Manitoba Conservation and our environmental liability insurance brokers. There has been no negative

impacts on the groundwater to date. Lab analysis data on the groundwater sampling for the last seven years is available upon request.

7. Stormwater management and runoff containment ...

A site meeting and inspection was made by a senior water resources officer from Manitoba Water Stewardship on Friday, May 8th, 2009 in regards to developing a site drainage and runoff containment plan for the composting pad. It was determined that the construction of containment berms could be accomplished by stripping off the top black dirt to expose underlying clay material that could be used to construct the containment berms. It was recommended that the berm have a 1 meter top width and have a minimum of 5:1 slopes.

The berms are to be constructed around the east and west runways. The north runway would remain open to provide continued drainage for snowmelt runoff. This north runway will remain clear of all compost material during the winter months to ensure there are no impediments or obstructions to the existing site drainage during the snowmelt runoff period in the spring.

A sketch to outline the location of the berms and the area that would be required to remain undisturbed was included with the letter received from Manitoba Water Stewardship. The letter and the sketch are enclosed as support documents to our response to the TAC comments.

The volume of rainfall for a 1 in 50 year storm event that needs to be contained on the composting pad area should be 4 inches in depth. The runways are 35 meters wide and 5 windrows that are each 3.5 meters wide will occupy one-half of the surface area. Therefore a minimum of an 8 inch berm needs to be built in order to contain that volume.

Airfield Organics Ltd. is proposing to build a one foot berm around the composting pad to contain any potential stormwater.

8. A copy of the contingency plan for odour control should be provided for review.

The contingency plan for odour control is to use either finished compost or straw bales to cover the outside of the windrow that is creating the odour problem. The straw or old compost will act as a biofilter and will help contain or absorb the offensive odours.

Turning the windrow can also aid in odour control.

Comments from the Rural Municipality of Elton

We further acknowledge the requests that the Rural Municipality of Elton have submitted in regards to the proponent submitting a haul route plan prior to start-up and respecting municipal road conditions. The haul route being proposed is on Provincial Highway # 468.

A letter will be sent to the R.M. of Elton in response to their request.

Comments from the Historic Resources Branch, Pollution Prevention Branch, & Manitoba Water Stewardship

The comments and guidelines enclosed for information from the Historic Resources Branch, Pollution Prevention Branch, and Manitoba Water Stewardship regarding odour and nutrient management will be respected and adhered to by the proponent, Airfield Organics Ltd.

Respectfully submitted and ...

Yours very truly,
Samson Engineering Inc.

Brent Hansen



Water Stewardship
 Senior Water Resources Officer
 Water Control Works and Drainage Licensing Section
 1129 Queens Ave.
 Brandon, Manitoba R7A 1L9
 T 204-726-6226 F 204-726-6301
 Ed.MacKay@gov.mb.ca

May 8, 2009

Mr. Brent Hansen
 Brent Hansen Environmental
 2 Pelican Point
 Box 63
 Ninette, MB. R0K 1R0

Dear Mr. Hansen

RE: SITE DRAINAGE AND RUNOFF CONTAINMENT PLAN FOR THE COMPOSTING OPERATION LOCATED ON E ½ 12-11-18W AND W 1/2 7-11-17W

Further to our site meeting on May 8th 2009, I offer the following as a possible approach to facilitate surface water runoff and rainstorm water containment at the site noted above.

In order to achieve rainstorm water containment on the composting site on the abandoned airstrips, I recommend constructing impervious containment berms that will fully contain the compost and runoff water that would accumulate from an extreme rainstorm event. It is recommended to provide containment and adequate freeboard to accommodate a minimum of a 1 in 50 year rainstorm event.

Please note that the runoff volumes and resulting required elevations of the containment berms must be calculated.

Construction of the containment berms could be accomplished by stripping off the top soil material adjacent to the runway strips to expose the underlying clay material. Compacted clay material could then be utilized to construct the containment berms. The cross section of the berms could be such that the side slopes could be farmed. I would recommend a minimum of 5:1 side slopes and a 1 meter top width. The topsoil could then be replaced back on top of the berm to promote vegetation growth and stability.

The north runway strip would remain open to provide continued drainage for snowmelt runoff. This north strip would have to remain clear of all compost material during the winter months to ensure there are no impediments or obstructions to the existing site drainage during the snowmelt runoff period.

By providing full containment of the compost material by way of constructed compacted clay containment berms, will not alter the surface water runoff of the site. As such, a drainage licence will not be required. In my opinion, with the construction of the earthen containment berms, the risk of nutrients escaping from the composting storage areas will be minimized.

I have attached a sketch to outline the location of the berms and the area that would be required to remain undisturbed.

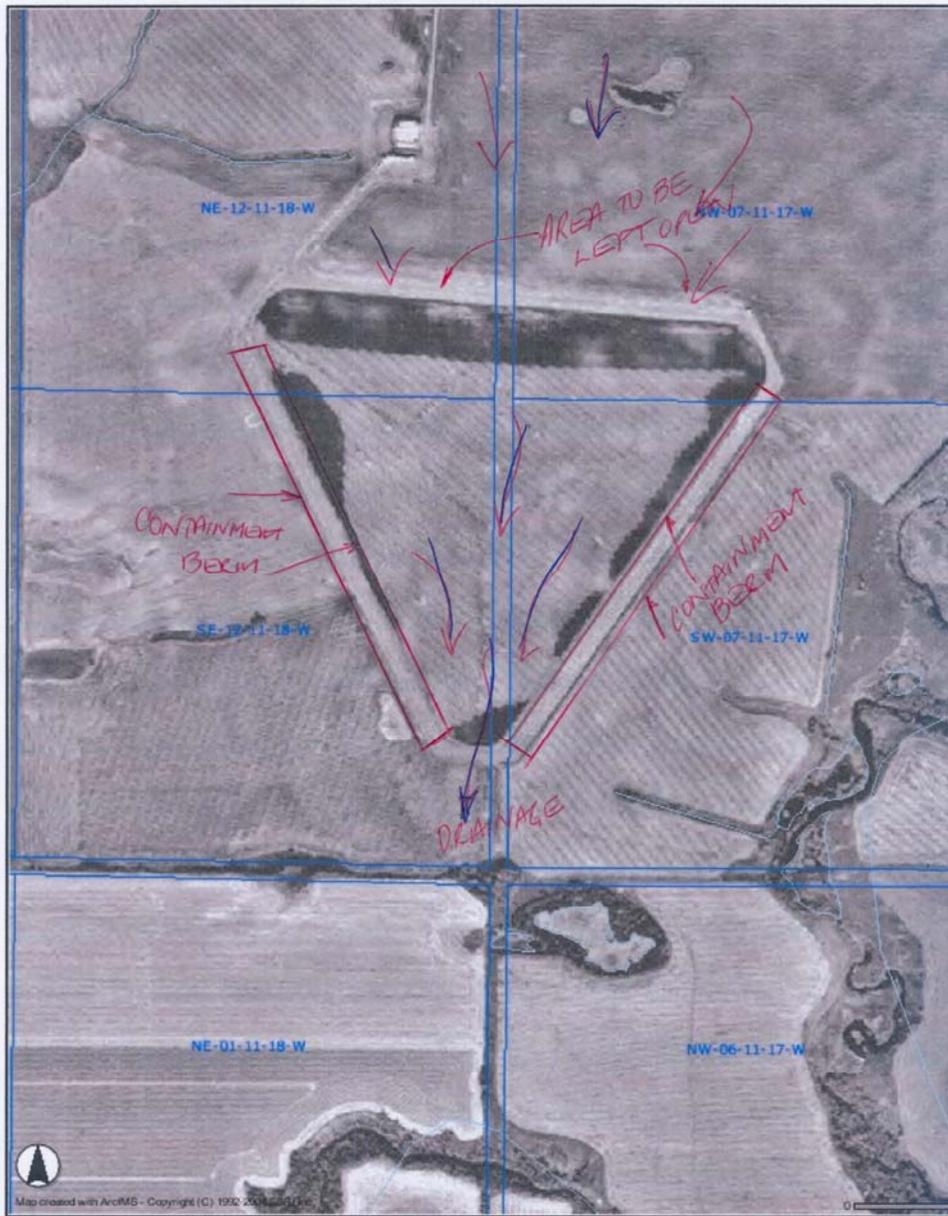
Yours truly,

Ed MacKay C.E.T.
Senior Water Resources Officer
Drainage Licencing Section

Cc: Perry Stonehouse

Manager Water Control Works Section

Brandon





Brent Hansen Environmental Business Consulting & Project Management Ltd.

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July 9, 2009

Manitoba Conservation
Environmental Assessment & Licensing Branch
160 – 123 Main Street
Winnipeg, MB
R3C 1A5

Attention: Holly Poklitar

Re: TAC Comments 2

Dear Holly,

I am writing in response to the additional comments from a TAC member that was inadvertently missed during the original EAP distribution.

Please find our response to their following questions:

- 1. What are the plans to maintain and improve the structural integrity of the asphalt in the future?**

If the structural integrity of the asphalt needs to be maintained or improved we intend to use suitable clay (10⁻⁷) from a borrow pit and use an asphalt packer to compact it into the damaged runway.

- 2. Due to the addition of wetter feedstock (DAF & WAS material), is there a contingency plan if the composting materials get too wet for aerobic decomposition (i.e. leachate drainage over the asphalt directed to the collection area created by the berms)?**

A two month trial was held in the fall of 2007 and there was no problem with excessive moisture. The DAF and WAS sludge is dewatered and the straw and manure is very dry so when the two were mixed together there was no problem with any leachate.

- 3. How are the haul trucks to be cleaned/sanitized? If at the site, there will need to be provisions in place for wastewater storage until application on the windrows, if applicable.**

The trucks and trailers will be washed out in Brandon at a truck and trailer wash facility that has been set up for the washing of the trailers that haul the pigs to market.

- 4. Are there provisions in place and location available for storage of the compost in the event of an excess for land application, inaccessibility of application fields or in the need for curing the compost past the October planned application time?**

The compost can be stockpiled into a large stockpile rather than being left in windrows 12 feet wide and 6 feet high.

If you require any further information, please feel to contact me at 204-726-3335.

Respectfully submitted,

Brent Hansen
President/BHE
Partner/Airfield Organics Ltd.