Figure B



Possible incineration and heat recovery system combined with the filtration of flue gasses

Figure C



The gas emissions from the vessel vary over the process period but the overall output percentages have been found to follow the research quoted below (TABLE "E") done on more traditional compost in-vessel composting. The filtration system is especially suited to modify the key components that would traditionally contribute to odour, in an open and longer process system. These gasses are released at specific and identifiable periods, within

Page L O

the process, namely; Methane, Ammonia and Hydrogen Sulphide.

Also it must be stressed that the ventilation of the units is a POWERED and CONTINUOUS process and therefore operates on a higher volume of air mixing with the released gasses. The volume for the proposed system will have lower ratios i.e. gas to air, than shown in the following research. The information is useful for reference to both the ratios of gasses in relation to each other and to demonstrate the key gasses that need to be dealt with. Continuous ventilation is also used as a further safety aid to the emission of methane and any potential "build up" leading to potential ignition. However again this is further modified by the high humidity within the vessel during the "higher release period" of this gas. Further caution is followed with appropriate safety shut off of the entire system should the ventilation be deactivated electrically or mechanically.

A noted difference in this "Rapid" process is that it does emit a higher level (approximately 3-4%) of ammonia (**NH3**) within the last 7-9 hours, for about 3 -5 hours of a 48 hour mix period based upon a "high meat plant product" mix. However the water-bath and carbon material filters are more than able to easily cope with this gas, and significantly higher levels (if the need arose). Also the plan is also to have more uniform levels of all material, that provide a much more consistent quality and shorter batch period that will not produce as intense a period or volume of Ammonia release. **Further a major goal will be to retain this ammonia and therefore stop the reaction at this point – for enhanced fertilizer value, further reducing the emission of this gas.**

Component		Percentage
Methane	CH4	40-70 %
Carbonic gas	CO2	30-60 %
Hydrogen	H2	1.0 %
Nitrogen	N2	0.5 %
Ammonia	NH3	<0.1% - 33%
(The volume is variable & more intense	at periods during the process	– depending on time & mix ingredients)
Oxygen	O 2	0.1 %
Hydrogen sulfide	H ₂ S	0.1 %
		Kotelko et al. 2007

Table 4 Gasses Produced

Maintenance

Cleanliness is of paramount importance and a fully operational pressure wash system, incorporating "quick attach supply lines" through out the plant is part of this plant. It also has four nozzle types, two pumps (one for back up), spare motors and a disinfectant mist attachment.

All equipment is built for easy cleaning and maintenance. Potential ware parts are extremely solidly designed as well as removable and replaceable. Any significant period of unexpected "down time" can be met by having the delivery of the waste diverted to the landfill site, where it is presently being delivered. Daily checklists will contain review of functionality of internal systems (e.g. filters ventilation and housekeeping) and external checks (e.g. physical smell detection and any seepage or wet final product that may need attention), these will be recorded and reported upon any abnormality.

Decommissioning

Decommissioning this plant would involve removing the "in vessel" machines each one is self contained and easily removed. All product will be processed immediately so there will be no storage of waste (no more than 24 hours or so anyway). Outside product is removed each spring and fall. This process could be performed within two weeks.

Page **L**

1. Section Description of Existing Environment in the Project Area

The site is essentially flat, with a gravel and clay base and over a mile from the dead horse river and there are no major drainage ditches close by. As the product produced has an intrinsic value in a dry state (14-16% moisture), care to maintain that level will be made by covering the product when stored outside during any season with risk of rain or snow melt. Cooling of the product also is part of the maturation and stabilization process inside the building.

The closest single family residence is 350 meters WNW of the project and 390 meters from the proposed outside storage. The Trucking business, Hi-Tech Trucking Ltd., main building is 161 meters away. The closest "commercial central" – zoned (retail) area is 800 meters in a northerly direction.

The closest natural drainage is 490 meters in the ,mostly higher elevated area to the ENE. The road has a very small drainage "depression" on the opposite side of the road. Any water shed off the property seems to follow the easterly then south east after about 200 meters across grassed vacant lots.

There is a Golf course over one mile away. The closest farm field is less than 100m across the road.

Prevailing winds are NW and South to SSE. Figure D



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2. Section Description of Environmental Effects of the Proposed Development

The Odour is the most perceived environmental effect from the proposed plant. However the extreme precautions taken are as much an effort to allay these perceptions, as they are to contend with actual odour production. This same process was run at Winkler Wholesale Meats in Winkler – <u>outside</u> for a period of just under 10 months in 2005/06. The one machine processed over 500 t. of meat and animal waste, bones and blood. The closest residence is 78 meters away with many within a quarter mile radius, there was no issue with any complaint or even comment of odour from the machine, for that time period, even with the fact that the <u>exhaust was NOT FILTERED</u> as will be with this plant. Further when product was processed and unloaded there was never an issue with flies – except if the house keeping was not meticulous and some material is left outside the machine.

The best gauge of the potential effect of this plant in the area is the anecdotal fact that the Hi-Tech Trucking operation presently has livestock trailers with Hog manure that when cleaned out and can be smelled from time to time (although this has diminished since their operation has geared more to "flat bed" trucking). ______. This trucking business is much closer to the closest residence and it is not anticipated or planned that any odour from the proposed plant will reach anything like the level of this example, which was very tolerable and sporadic.

The "in vessel-in building" set-up of this process will have extremely minimal effect upon the local environment. The product will be fully cured before it may be covered and stockpiled outside so it will pose no odour, dust or leachate issues within the property or in the surrounding area.

3. Section

Mitigation measures and residual environmental effects

Although this proposal has many benefits and is considered safe and free of any potential environmental hazards the following table endeavors to foresee potential issues – however small or unlikely and presents the procedures to mitigate or restore any damage envisaged. Further any of these negative possibilities con be further prevented by a through initial, and ongoing training and review plan as is part of this Company's Goals.

Potential Issue	Potential Causes		Solutions - Remedy
Creation of Odour : Inside	Poor incoming product Exhaust gas odour : at any stage of process	 PRIORITISE to deliver to sealed machines Add inert material – sawdust, wood chips – on • Turn off Ventilation to outside for period to allow to take effect • EMERGENCY ULTIMATE REMEDY: Divert before unloading truck • Turn off Ventilation to outside • Add inert material • Turn off Ventilation to outside • Add inert material • Turn off Ventilation to outside • Add inert material • Turn on filter disinfectant spray mist process • EMERGENCY ULTIMATE REMEDY: STOI PROCESS - Unload machine - Divert to land fil • Reprocess material in machines - If necessar	
	Other causes – particular product that causes odour issues. Testing and maturation pot		 reintroduce to building for further maturing time (Reevaluate testing and process) EMERGENCY ULTIMATE REMEDY: STOP
In Outside Storage	complete		
Product tests BOD COD unacceptable	Too short process time		 Recycle through machines and or blend with part batches and "re-mature" inside - before final stock pile.
Stored Product becomes wet and leaching ensues	Cover is accidentally removed by wind or human error and rain causes run off		 Replace cover Use existing dry wood product (always on hand) to "soak up leaching" use this product in the machines by removing from affected area once saturated and re apply until initial issue is resolved. Redesign storage - if needed, Use a berm in larger leaching situation, to contain then
			pump leachate to tank for recycle water and process through machines. • Introduce containment diking around storage site if this
			as ever a problem
Ammonia level detected outside	Scenarios of failure to incorporate the filters		I his would only ever be produced from one or two machines at any given time, can be detected easily and rectified immediately – either by switching the machines in question off or correcting the issue with the filter, by switching to a back up filter, renewing the filter material and finally routing the air through double filters.

TABLE 5 Issues, Causes and Remedies

As previously discussed; all air inside the building will be filtered for particulate matter and for occasional periods of levels within the machines of, trace H2S and varying levels of NH4 through the water - bath and carbon filters.

All wash water from the plant is projected to be recycled within the plant – not that it would need to be but out of further environmental conservation and stewardship as well as just, "good press"; to future interested clients, we believe water conservation strategies will further enhance our claim and commitment to real environmental sustainability. It does further the goal of reducing waste delivered to the environment in any form. We can claim one more exciting boast for this process to incorporate so many positive aspects and so very few (if any) negative issues for the environment! Other areas in the world may also find that water conservation, in this manner is even more important than in this particular location.

4. Section Follow-up Plans, Including Monitoring and Reporting

We will have a fully integrated record, check and process system that all but eliminates any potential human error. Even in the case of human error in the most severe situation; the consequences will be minimal for the plant and negligible to the local area outside the plant. Further training and review will be an ongoing process, which has and will continue to be the philosophy of this company. This is chiefly because training is seen as a good preventative for accidents involving people, environment and the equipment it's self. The physical flow of the process being contained and monitored then recorded is designed to provide as "fail safe" a system as possible, with recording providing the all important, reminder, check and awareness of all aspects of the process.

- 1. The process is:
 - a. Containers filled (meat plant)
 - b. Record of contents (by a certified person on site)
 - c. Trucker double check record
 - d. All product Delivered in containers
 - e. Record of type of product, weight and condition at receiving area, in plant.
 - f. Scheduled to fill machine and recorded into a batch (permanent lot number) and loaded
 - g. In vessel processing observations and additions recorded along with any abnormalities and checks.
 - h. Unloaded and allotted to cure area lot number recorded together with "cure cell"
 - i. Evaluation of cure progress added to Lot record,
 - NB: (Extendable both in vessel and in "building mature period" if required or deemed necessary, by evaluations)
 - j. Stored outside if destined for land application
 - k. Sent to land fill if final SRM product not otherwise treated or processed.
 - I. Optionally incoming product sent to land fill and or finished product also in any emergency where a more beneficial process could be used.

Recap: Monitored through out process, tested for maturity at end of process COD & BOD tests on mature product before final storage outside the building If Manitoba Conservation requires "Manure spreading documentation" for the application of the compost to farm land – this process will be followed and the appropriate papers and information shall be provided as per the regulation.

5. Section

Conclusions

We are very excited to be on the leading edge of such a unique and phenomenally beneficial process that is indeed the first of it's kind to be processing product of such a wide range and scope with a new technology that is affordable and effective. It is a pleasure and honour to be able to have this project in Southern Manitoba, where we believe it truly has the potential to revolutionise landfill practices around the world.

Please NOTE:

For further background on composting of animals, food material and green waste around the world please see attached "short summary" of composting around the world in the appendix.

6. Section

FURTHER INFORMATION, BACKGROUND, RELATED INFORMATION AND APPENDIX

APPENDIX "A"

ADVANTAGES of THE "RBD" PROCESS

This system is

(1) **<u>uniquely</u>** fast 24-48 hours per load

(2) **uniquely versatile** and

(3) produces a uniquely high quality product.

(4) -----

- Waste disposal to landfill can be potentially reduced by at least 40-50%
- <u>Meets and exceeds all recognized standards</u>, yet incorporates efficient new technology
- Significantly enhances and improves the existing methods such as land fill and regular incineration and provides a long list of benefits unlike any system used to date:
 - Eliminates pathogenic bacteria and viruses
 - Fire safety
 - Efficiency and Efficacy
 - Impact on the Environment
 - Quality and safety of process
 - Quality of final product saleable as fertilizer and solid fuel
 - Low operating cost
 - Profitable within present fee structures
- Allows for total flexibility of:
 - Choice of process
 - Size, condition of product to be processed
 - Naturally modifies wide range of P.H. levels
 - Product produced out put for various market options
 - Over max capacity possible
 - Maintenance and cleaning schedules
 - Government / farm emergency capability
- Easily handles large animals whole
- High degree of automation, Therefore:
 - o Significantly reduces chance of human and or mechanical error
 - Ease of operation and less operator training required

APPENDIX "B"

Plant Equipment Features

Because of the unique, extremely fast, in-vessel design and utterly complete "bio degradation" achieved with this technology there are several exceptions that we propose to the requirements in the MCG. It is our intention to fully follow the intent and safety of the guidelines so that goals, such as ground water safety and air quality are always superior to conventional systems envisioned within the guidelines, however we do believe that a "consultation and consensus" process can be followed so that the FULL intent for a clean and safe operating site can be achieved with no detrimental effects to neighbors or environment.

- a. THE SITE will be clean and odor free, predominately by being "IN BUILDING", "In VESSEL", further; all water and air shall be modified or eliminated by using immediate on site processing with <u>multi-level</u>, "redundant" air filtration for added odour protection (including a 2nd back up system in case of cleaning or mechanical failure). A water recycling system for all wash water this will be filtered and reused.
- b. The, "in building in vessel" machines are designed and operate upon a tried and tested design (since 2004) that is not anticipated to cause any issues involving:
 - i. The Air
 - ii. Water/ Sewage
 - iii. Wild life (e.g. Birds, Rodents or larger scavengers
 - iv. Human Population
- c. The site will contain multiple layers of "Fool Proof" physical, mechanical and electrical barriers and forced process procedures to eliminate any possibility of Human, mechanical or process failure. And in the event of any cessation of process all material can be rapidly dealt with, by the present process; namely landfill. It is not a plan to store any untreated waste on site for any appreciable time period. Highly degradable material will take precedence within the process and other material will be drawn upon on an "as and when needed" basis.
- d. Utilizing new and conventional technology for process and treatment.
 - i. The "RAPID BIO-DIGESTION"("RBD") Technology, totally verifiable, efficient with unsurpassed environmental benefits will be used as the key process for the majority of the product handled.
 - ii. An option for the final stage of Specific Risk Material (from beef Cattle) a high heat incinerator will be fed the final RBD processed material to treat the final stage. This may or may not be processed on site in Morden. This stage will meet the certified assessment and risk level of hazardous material as per the Canadian Government standards. The heat generated from this process will be used to replace and sometimes supplement heat for the machines and plant. This will significantly reduce the electrical requirements and with the optional use of the vent gas from the machines (Methane) being used as the air supply for the incinerator will reduce GREEN HOUSE gasses.
 - iii. Other wise as mentioned

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- 2. Management, installation and service for the project will be provided through Ag Compost Inc. Also two employees and a manager. These employees will partly provided as and when needed for warrantee work, for ongoing R&M work and to operate the plant.
- 3. Machinery and equipment will be a guaranteed , delivered and installed as per "Appendix H"

General

The key goals above, to operate a process plant to convert any bio-organic material, predominately from plant and animal origin - efficiently, with no negative and totally positive environmental impact, with the HIGHEST LEVEL OF SAFETY FOR: AIR, WATER, GROUND, WILDLIFE, FARMS & HUMAN POPULATION.

The following features will assure all accepted, certified treatments are not only met but exceeded.

Many points of Bio-security depend upon security and basic procedures, the exceptionally high standard for the design of this plant is that it will be based upon multiple checks and balances from several sources:

- A "Hybrid" of the latest new technology combined with accepted well proven Technology
- Physical design
 - Automatic and automated
- Multiple Material Process
 - o At least two processes of certified treatment for high risk material
- Total Audit Record Keeping
 - Batch sample storage at all stages of process
 - Random Checking
- "Fail Safe" Procedural process complimented and secured with all the above

Safety Plant Policy Developed and Implemented

Conveyors and material handling equipment in general:

- Shall be designed to be washed and disinfected
 - non corrosive materials
 - o total ease of dismantling and reassembling
 - ease of maintenance both; standard and repair
- automatic and automated as much as possible
- Multiple sensor monitoring providing process "normal operation" and exception alert on "abnormal operation" verification:
 - computer batch temperature monitoring (incinerator)
 - safety switches
 - o alert notification of any abnormality in process
 - \circ $\,$ back up and emergency shut-down systems where appropriate
- Loading capability of :
 - A) Liquids
 - B) Whole animals
 - C) Animal parts

- o D) Green waste
- E) Food waste
- o F) Straw
- o G) Flax chives
- H) Other carbon material chipped wood

1) Rapid Bio Digesters

Considered **Stage ONE** of initial Precondition Process for SRM final stage for **all other material**.

Stage TWO and final process for SRM incinerator -

Given the redundancy of burning at a heat level to meet a standard that really only renders an ash as "SRM protein (Prion) free" this expensive stage can be delt with by maintaining "SRM" status and disposing of it at a suitable site (the S.W.A.M.P. land fill north of Winkler) Otherwise a double burn at min 850°C for 15min Ash at 850°C for >3 seconds can be installed at some future date.

Six RBD machines in area with separate ventilation for exhaust - double filtered.

This process works to biologically break down bio-mass and carbon material under a moderate heat range of 70 °C.

The resultant product is light soft and loam-like in texture. All common pathogens including foot & mouth causative agents are destroyed well below this temperature and especially bacterial environment. Therefore the product has been approved for a high value soil conditioner and fertilizer. This approval is from Environment Canada and CFIA. Environment Canada and CFIA require a different method for final processing Specific Risk Material which may include prions, this process will provide the option to process the full capacity of two to three machines through an approved and certified incinerator process. Because of the high level of the material breakdown in the initial process the incinerator will work much faster, efficiently, especially for the safety and pathogenic destruction than any process currently being used in the world at this time, assuring a very high quality, secure process.

The Projected maximum Output – 2 t per day per machine. Minimum with SRM 2 t per day

- The machine is charged with "cartridge" with specific bacterial cultures
- The machine is ecologically safe
- Process reaches a process temperature of 70'C
- The process kills salmonella bacteria, E-coli and many other pathogenic bacteria as per accepted regulations
- A catalyst material of cellulose material is used for the processing
- Also the Cellulose is used as a fuel for any material needing the full level destructive treatment through the high efficiency incinerator

2) Incinerator

SRM incinerator - double burn at min 800°C for 15min Ash at 800°C for >3 seconds

Capacity 2 t - 4 t per day

3) Air Exhaust Filtration

Ventilation through machines exhaust vents filtered by:

- water bath,
- BIO-carbon filter,
- Disinfectant mist filter if required

4) Wash Water Treatment

High pressure wash machine for washing bins and machines provides capability for:

i) Auto High heat high pressure rinse

- ii) Soak with detergent
- iii) High pressure wash with detergent
- iv) High pressure wash rinse
- v) Low pressure disinfectant application
- vi) Soak minimum 4 hours
- vii) Final Hot rinse (optional)

5) Material Types

- i) Material shall be of 5 categories
 - (1) Green Waste
 - (2) Organic residential
 - (3) Organic Commercial
 - (4) Meat waste
 - (5) Whole Animal

APPENDIX "C"

Financial Analysis and Assurance

ASSUMPTIONS

- 1) Adequate Investment has been deposited in the company to secure the equipment lease and operation through to profitability.
- 2) Over 200% of process material supply (organic waste) and price per ton has been committed and signed "Commitment to Supply" agreements have been obtained.
- 3) "Commitment to purchase" agreement signed for fertilizer sale of final product on a formula based on a percentage of "fertilizer value" in each ton.
- 4) Agreement to rent (with option to buy) the building from the owners in Morden has been signed for a fixed price.
- 5) Pick up and delivery of material will be provided by PVC Waste LLC of Morden Manitoba. This includes carbon green waste, food and meat waste sources from:
 - a. --b. --c. --d. --e. --f. ---g. Other local sources

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APPENDIX "D"

Plant Layout

1) RECEIVEING AND SHIPPING AREA

- A. Has unload and reload capability for bins.
- B. Close to bunker for loading out going product
- C. Bunker for incoming product
- D. All wash capability with sump and pump to sewage or feed back to machines.

2) ENTRANCE TO PLANT AND OR OFFICE

Considered an entrance to a "CONTROLLED AREA" meaning all non trained personnel and visitors are :

- a. Logged in
- b. Given over boots for duration of their stay in the office
- c. Instructions given
- d. Monitored 100%
- e. Leave over boots behind with no cross over
- f. Wash hands
- g. Logged out

3) OFFICE

- a. 2 Areas established:
 - Visitor Controlled area "VCA"- this consists of board room and washroom etc. to contain any "less trained personnel" for any business
 - 2. Controlled area This area is for the operation and office work area for the day to day operations of the plant.
- b. In general the office area is a "Controlled Area" no outside visitor is allowed past this point without accompaniment and very good reason
- c. All visits are to be kept to the "Visitor area" when possible

4) <u>KITCHEN</u>

This should be considered the same as the Office area and run with the same controls with the exception that the food should all be kept in a closed compartment and a strict hand wash process implemented with the highest level of cleanliness observed for food preparation.

MANPOWER ASSESSMENT

Manpower Assessment (Figure E)

Job Description	Shifts	People Needed	Location	Required Skills	Pay Scale/ Training
Operator/Maintenance	1	3	In Plant	Labour Skilled Electrical & Mechanical	Operator/ Maintenance
Managers	1	1	Office	Professional/Business Management	Managers
Total		4			

APPENDIX "F"

FURTHER FOLLOW-UP RESEARCH

Figure F

Interesting Research To follow...

Figure G

APPENDIX "G"

Plant Safety Policy

I. PURPOSE

Although the plan is for this plant shall meet or exceed all regulations required, and given that these regulations are the minimum standard of the Manitoba, Canada Workplace Safety and Health Regulation 217/2006, the standard which will be set for the Project Safety Program is to meet or exceed the equivalent of the Manitoba , Canada Workplace Safety and Health Regulation 217/2006 which should provide a safe workplace for the employees and any members of the population that have any physical contact, direct or indirect, with this project.

II. SCOPE AND RESPONSIBLITY

This procedure will apply to all employees and contractors.

Senior Management

Provide information and assistance to ensure that all employees working at our facility have the necessary resources to work in compliance with equivalent Manitoba Workplace Safety and Health Regulation 217/2006.

Department

Managers or supervisors must ensure that all employees follow our safety policies and procedures and have the necessary training, tools and equipment to safely conduct work as per the Safety Regulation.

III. PROCEDURES

Manitoba Workplace Safety and Health Regulation 217/2006 requires Safe Work Procedures for all work conducted in Manitoba workplaces.

Confined Spaces

Any space that has a restricted means of entry and exit and not designed for human occupancy is defined as a confined space. The legislative requirements for confined space entry are Manitoba Workplace Safety and Health Regulation – Part 15. Some of the specific legislative requirements are:

- 1. Conduct a full risk assessment on all confined spaces.
- 2. Develop and implement safe work procedures based on the risk assessment.
- 3. Only personnel trained in confined space entry will be allowed to work in and around confined spaces.
- 4. Air monitoring is required prior to conducting any confined space entries.
- 5. Minimum 2 workers are required to conduct any entries, one entrant and one worker assigned to provide a safety watch.

6. Provide necessary documentation (Confined Space Entry Permit) prior to conducting entries.

Working at Heights

Any area that workers access which is more than 3 m in height or where there is a risk of injury due to falling must follow procedures for working at heights. The legislative requirements for working at heights is Manitoba Workplace Safety and Health Regulation – Part 14. Some of the specific legislative requirements are:

- 1. Conduct a full risk assessment for areas where worker have a potential for falling.
- 2. Develop and implement safe work procedures based on the risk assessment.
- 3. Design work areas to eliminate the fall hazard and therefore workers will not be required to wear fall protection equipment.
- 4. Train workers to safely work at heights, inspect and use all necessary fall protection equipment.
- 5. Install approved anchor points where workers are required frequently access the work area.
- 6. Wear a full body harness and connected to an approved anchor point.
- 7. Develop control zones which would prevent workers from accessing areas where there is a potential for falling.
- 8. Only CSA approved safety equipment will be allowed to be used.

WHMIS (Workplace Hazardous Materials Information System)

Any worker working with or in the vicinity of controlled products will be required to trained. The legislative requirements for controlled products in the workplace is outline in Manitoba Workplace Safety and Health Regulation – Part 35. Some of the specific legislative requirements are:

- 1. Must have a material safety data sheet (MSDS) for each controlled product used or stored in the workplace
- 2. All containers containing controlled products must be appropriately labeled.
- 3. All workers must be trained to read and understand labels and material safety data sheets.

Motorized Equipment

All workers who are required to operate motorized equipment will receive the necessary training and certification prior to operating the equipment. This is a requirement in Part 22 Manitoba Workplace Safety and Health Regulation. The training must be conducted by someone who is qualified to conduct such training.

1. Emergency Response

Due to the nature of the product being handled at our workplace, immediate emergency response is critical to minimize and control all emergencies within the workplace. Specific workers will be identified to participate in the emergency response team. An emergency response plan will be developed based on the risk assessment to deal with all emergencies. The emergency response team will be trained and equipped to initially deal with emergencies until the fire department arrives. Even though the Winkler Fire Department is a fully trained and equipped fire department to handle most emergencies, they cannot be counted on to immediately respond because they might

be involved in another emergency. Incidence which might require an emergency response includes physical injuries, fire, explosions and environmental releases.

Safety Committee

A safety committee will be formed to ensure that all workers safety concerns are heard and dealt with prior to becoming a major concern. Equal representation from management and the workers will be maintained on the committee. The committee will meet at least once every 3 months as required by Manitoba Workplace Safety and Health Regulation - Part 3 and more frequently if necessary. Records will be maintained and posted to ensure all workers are aware of the concerns and action plan to deal with the concerns.

Worker Orientation and Training

As soon as staff are hired, they will receive safety orientation training to ensure they are aware of all policies and procedures. Training will be conducted prior to requiring workers to conduct tasks for which they are not trained. All training will be documented to ensure all necessary training is conducted and remains current.

Inspection and Maintenance

The necessary inspection and maintenance will be conducted on all equipment to prevent or minimize the chance of unplanned shutdowns or emergency repairs. A documented preventative maintenance plan will be implemented to ensure all equipment receives the necessary attention. Vibration and oil analysis and thermal imaging will be considered to also assist in identifying all potential maintenance some other benefits of a properly functioning preventative maintenance program are:

- Improved system reliability.
- Decreased cost of replacement.
- Decreased system downtime.
- Better spares inventory management

Full plant safety procedure policy, manuals and training for management operating staff, and all delivery drivers or service personnel

APPENDIX "H"

Leased Equipment

Figure H Machine and Equipment Leased:

APPENDIX "I"

A SHORT AND CONDENSED OVERVIEW OF THE COMPOST INDUSTRY AND LEGISLATION AROUND THE WORLD.

Organic waste makes up approximately one-third of a typical western country's waste stream s and consists of:

- * Leaf and yard waste;
- * Household "green bin" waste;
- * Food from restaurants, hotels, schools and hospitals;
- * Residue from food processing operations and supermarkets;
- * Spoiled food;
- * Sewage bio-solids and septage; and
- * Pulp and paper mill bio-solids.

At present, most organic waste is sent for disposal in landfills or is land applied. Organic waste takes up valuable space in landfills. It decomposes in landfills, creating methane (a major greenhouse gas) and leachate. Land application of organic material, especially bio-solids, without further treatment through composting, often faces considerable public opposition due to concerns about odours and depending on the origin of the waste material, real or **perceived** pathogen risks. A composting process is recognized as the only practical viable method available to Cities and Countries around the world to cheaply and effectively "further process" this type of material. Many benefits are recognized by the societies with the most advanced waste regulations (The E.U. being the leader which is further led by the U.K. in regulation and process). The advantages of this technology are numerous including but not limited to the following:

• _Natural process driven by naturally occurring bacterial break down of organic matter. These bacteria produce hundreds of enzymes which, in turn break down the proteins within the material.

• _Naturally produces heat which, in the right conditions destroys a wide range of pathogenic (or disease causing) bacteria when and **if** present in any given material. This destruction and "partial sterilization" is further enhanced by the enzyme breakdown.

- _Can be done on large scale basis.
- _Can be done in controlled environments ("in vessel" by a closed machine) for more effective and uniform process and with higher risk materials to insure a final quality product.
- _Produces a high quality versatile end products such as fertilizer and potential energy generating gas.
- _Reduces volume and weight by as much as two thirds.

Even though the function and value of composting has been known for thousands of years the new research and application of the resulting technology is still in it's infancy. There is no doubt that as the appreciation and application of the new research and developing technology continues this industry will become an accepted imperative for all levels of waste management around the World.

Quality standards (metals, pathogens, maturity and foreign matter) for each category of compost, as well as restrictions for the use of each category commensurate with the quality of the product and the risks associated with its application, to ensure protection of the environment and human health.

The state of the strictest regulations within the most stringently enforced zones in the world are best summed up in the following summary of the E.U. (Europe) and Canada and USA. Typically if a technology is run to meet the following standards then it will pass scrutiny in all other areas of the world. However with this said, there will be many different emphases placed upon various processes depending on a multitude of factors such as cultural, special environmental and other interest factors (not necessarily valid or needed) within different jurisdictions.

EU:

European Animal By-Product Regulation (2005) (2002/1774/EC). Stringent environmental standards laid down in the Integrated Pollution Prevention and Control legislation (IPPC).3

Canada and USA

Regulation 347 under the Environmental Protection Agency

Compost is federally regulated under the Fertilizers Act and Regulations as well as the Municipal (similar is some USA States) Hazardous and Special Waste (MHSW) plans incorporating guidelines for Composting Facilities and Compost Use. Three categories for finished compost (AA, A and B):

* /Category AA/ – Ontario's current compost standard, which is the highest quality compost product, and the strictest standard in Canada.

* /Category A/ – Category A would be the same as AA in almost all regards, except it would allow slightly elevated levels of zinc and copper in the finished compost and would allow bio-solids that meet the feedstock metal standards to be used as feedstock.

* /Category B/ – Category B would allow higher levels of heavy metals in the finished compost than Category A, and would also allow bio-solids that meet the feedstock heavy metal standards to be used as feedstock.

A typical in-vessel machine "with state of the art technology" at present will produce compost in 10 - 14 days.

Ownership of Building

433 - TOWN OF MORDEN 50 - IND S OF S RLWY 6-2-29821 3337601 MANITOBA LTD 439 10TH ST MORDEN MB **R6M 1L8**

Certificate of Title / Land Title Office 2155916 / MORDEN

Review History

Feb 10, 2011 OFFICE REVIEW INCOME INFO Jun 23, 2010 INCOME INFO FROM OWNER/AGENT May 21, 2010 INCOME INFO FROM OWNER/AGENT Jul 24, 2006 INFO FROM GOVT AGNCY OR MUNI Aug 06, 2008 INCOME INFO FROM OWNER/AGENT Jul 27, 2007 EXTERIOR&INTERIOR INSPECTION Jan 21, 2010 INCOME INFO FROM OWNER/AGENT

Sales History

May 17, 2006

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\$32,400 MORDEN COMMUNITY DEVELOPMENT TO 3337601 MANITOBA LTD

Roll # 199900.000 R





August 07, 2007 july 27 2007 011

August 07, 2007 july 27 2007 010

	2012			
Class/Liability	Land	Building	Total	
60/T Other Property/Taxable	34,600	145,300	179,900	

Apr 1, 2010 Market	Characteristics	Year Built/Effective Year/ Exterior/Interior Condition/ Obsolescence	Size	Assessed Value	Тах
BUILDING #5-10	50/10 - LIGHT STEEL WAREHOUSE	2006/2006/Normal/Normal = 54.00%	6,000 SF	145,300	60/T
LAND	SQUARE FOOT		46,174.00 feet	34,600	60/T
				179,900	
© Maniloba Assessment	Services	Printe	ed By: AVOTH Septer	nber 22, 2011 12	2:35 PM

Dwelling Units 0 140.00 feet

