ENVIROCLEAN LANDFILL SOLUTIONS LTD.
(6204198 MANITOBA LTD.)

Organic Waste Processing Plant
Environmental Act Application

Rapid Bio-Digestion Process

October 3rd 2011

FOR PUBLIC DISTRIBUTION

(NB) Areas highlighted or shaded are confidential and will not be included in the Public Version

PREPARED BY: Ag Compost Inc.
In coordination with
Roger Price B.S.C Ag Price Consulting,
Mike Booy BEng Chief Project Engineer
Ben Lau B.Eng. Zhu Bin Engineering Consultant
Dr. Phil Sweeny PhD.
Michael Newman CRA
Peter Neufeld M.S.C.

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N.B Text that is interspersed with-----denotes removed private and confidential material from the public record.

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1. Section

Environmental Act Proposal (EAP)

Executive Summary

Ag Compost Inc. Management Team

I. Project Management

Ag Compost Inc. is the management company acting and applying for this license on behalf of Enviroclean Landfill Solutions Ltd. This environmental consulting company is based upon a sound background of people and experience working together from several business areas that all have had to become "environmentally astute and inventive" to adapt to the new realities in waste handling and processing for the many projects and business structures either developed or improved under their guidance.

Mark Milne is the President of Ag Compost Inc. and has been involved in many sectors of business and the agricultural production and processing Industry in Canada for the last 33 years.

His achievements include building and managing production companies of three large animal production systems developed over a 20 year period in the Canadian prairies. In the last 10 years this expertise has been used for troubleshooting business and environmental issues for several similar, large companies, in Canada and the USA. Often key issues of waste and animal mortality handling and processing problems are what these systems had to incorporate strategies within their business structures.

These projects have been diverse and complex but always incorporated significant innovative changes needed for waste and by-product disposal and recycling. Projects have ranged throughout the world including, Canada, USA, Australia, Spain, Russia, Kazakhstan, Ukraine, U.K - Scotland and England, Israel, China and Hong Kong.

It is out of this background that the exciting new technology **has been developed called "Rapid Bio-Digestion"**. The many possible applications and inclusion of this technology is a further varied and innovative answer for many of the high priority waste and energy issues around the world today.

Milne heads these companies from strengths in both, management "know-how" and strong technical background, with the ideal past and present expert contacts to provide the needed expertise in any system application. His plan is to carry the Company into the future in concert with his partnerships around the world and the many synergies that are derived from these alliances. This is just the beginning of many projects to improve the environment in many countries across the globe!

Milne was one of eight Vice Presidents and division Chief Operating Officer of what is now called Viterra (TSX:VT) a public company that has become one of the largest grain companies in the world.

II. Project Engineering &Technology

Mike Booy B.Eng. (Vice President, Ag Compost Inc.) is both a structural and mechanical design Engineer.

Booy has been a key designer and partner in Ag Compost Inc. Having been involved, in the past, in building large scale farms, design of large, self contained waste systems and equipment as well as specialized process equipment. In the last 10 years Booy has been chief consulting & design engineer. He has had 32 years experience in the design and building business. He has worked with Milne on over 40 projects in Canada.

Booy has been involved in special design system and building design and also equipment for rapid bio-digestion and process waste products since 2002 and with more traditional processes for many years before that. As well as being a very talented engineer Booy also has great talent in management and large public company experience having been Divisional General Manager of Operations with Saskatchewan Wheat Pool (now Viterra) working with Milne and one of two key management staff in that company.

FIGURE "A"

III. Chinese Engineer & Liaison

Ben Lau (Vice President of operations Asia)- Engineer, Translator/Interpreter - Operations and Coordination

Mr. Lau has been instrumental to the operation of finding and partnering our operations with the Chinese companies and partners.

Mr. Lau is also working on the production and further ongoing research of further technology built around the Rapid Biomass Digestion (RBD) process for many other exciting applications.

Through Ag Compost Inc. and partners, work to enhance opportunities for this technology and work to expand and incorporate more diverse projects is also being developed.

IV. C.F.I.A. Consultation

Canadian Food Inspection Agency, Winnipeg Manitoba Canada

Ken Sloik is this project's contact with CFIA. The process of consultation includes both, development of Standard Operating Procedures (SOP's) and application for license to collect, transport and process Specific Risk Material (SRM). The SOP's once finalized, will provide the fail safe strategies for the safe handling of SRM. Ken has kindly agreed to help in the review and finalization of these to ensure all special requirements for process and disposal of this material, that is associated with bovine spongiform encephalopathy or BSE, are more than adequate to exceed all required standards.

V. Consulting Chemist

Dr. Phil Sweeny is the consulting chemist for Ag Compost Inc.,

Dr Sweeny is, at present, working with Lonza Corp. out of New Jersey, USA, he has a PhD. in chemistry from University of Minnesota. His experience with carbon processes date back to having done his thesis on the liquefaction of coal and further research into chemical and bio processes, related to clean and environmentally friendly fuels, for his doctorate. Dr. Sweeny provides valuable, ongoing input and advice to our projects.

VI. Consulting Safety Standards and Safety

a. Michael Newman CA B.Sc.

Presently working within a joint venture with The China Independent Standards Company, Beijing. Mr. Newman is heading the safety standard approval and certification project for the expansion of the Beijing subway system. The company he represents is a world-wide, Australian based company has and will provided guidance for safety and redundancy systems for the plant to meet and exceed all safety and certification criteria required by the strictest standards.

b. Peter Neufeld C.R.S.P

Neufeld will be the site safety consultant and is a professional Canadian expert in Workplace Health and Safety, certified safety inspector and health and safety training program builder for Canadian Fire Fighters.

2. Section

Introduction and Background:

Project Overview and Goals

This exciting new and innovative approach to landfill solutions has the potential to revolutionize landfill usage around the world. After extensive research on 4 continents there is no similar system that utilizes this approach and technology to landfill reduction of bulk carbon waste!

Typically carbon waste (feed stock), if processed falls into three separate categories around the World;

I. Green waste (Leaves, wood waste and grass clippings, etc.)
II. Food waste (Garbage) from households and business or food processors.
III. Meat waste, dead stock and biohazard material
    a. The third category, for purposes of this proposal will further be split into livestock mortalities and "Meat Waste", particularly ruminant (bovine) Specific Risk Material (SRM) in this case.
    b. Biohazard material – We don't propose to handle material in this category at present.

This proposal is to establish a facility, to demonstrate a well-proven "Rapid Bio-Digestion" (RBD) technology, which will process all of the above-mentioned materials. Although the technology is based upon "composting", and meets and exceeds the full definition of the **"Manitoba Conservation Guidelines (MCG) for Compost Facilities"** it presents very an exciting break-through in quality, process, speed, control, traceability and cost effectiveness. Further it is **categorized as "In-Vessel Composting" as per the definition in the MCG**. Although such a wide application compared to the traditional process is totally new, this particular process is so fast and unparalleled anywhere making it feasible to process a much wider range of product than before, because of the speed and effectiveness of the technology.

This project WILL MEET AND EXCEEDE ALL REQUIREMENTS WITHIN THE MCG REGULATIONS. The success of this goal is based, in particular, upon the ability to control and moderate the whole process from delivery of the waste, to the exit point of the, very high quality, dried product. There is a maturing (cooling) area WITHIN the facility, which then produces a mature high quality compost. The plant nutrient level being variable based upon input and post process blending options.

It is important to know that the base process that this system will use, has been tried and tested with machines exactly the same as will be used in this plant and the products to be processed have all been tried and successfully treated MANY TIMES. The **DIFFERENCE** is that this project takes this process to "THE NEXT LEVEL" by being set up to significantly process large (meaningful) volumes in a well prepared and equipped facility.

Details As Per The EAP

- **quantitative information on the volumes or amounts of products or services as applicable;**
  - A minimum of 4000 metric tones per year and up to 8000 metric tones can be processed of the aforementioned products. Depending on supply and logistics; more or less of any product may be processed thus affecting the "throughput" volume.
  - Out put volume will be one third or less of the final product i.e. less than 1200 metric tones up to a maximum of 2400 metric tones.
  - This product is already committed to farming operations in the area and is expected to be incorporated on the fields in fall and spring.
  - Time for maturation of processed product is approximately one to two weeks – the capacity in the building at the highest through-put may be extended if needed or desired, up to 3 weeks. Total capacity in the building including machines would be 500t.

PLANT THROUGHPUT

Conservative and maximum projection; incoming waste & out going product
MINIMUM: Table 1

All Other Waste streams - Tonnes Processed	2509
	0
Special Meat Material	167
Full value slaughter beef material	1506
Tonnes Processed	4182
Heating pelets	220
Tonnes Sold As Fertilizer	1244
Total Tonnes Sold	1464

Table 2

Estimated Tonnes and Income per/tonne, per /year

Type of Product	**Approx. Tones**
(1)Calculated Gross return for Regular Tonnes (FOOD WASTE)	2500-3000
(2)Calculated Gross Return for Whole animal / Meat waste Tonnes	1500-2000
(3)Calculated Gross Return for SRM Meat Tonnes	160-250
Calculated gross Average revenue per Tonne	
Fertilizer Value per Tonne	1000-1500
Fuel Pellet value per Tonne	50-300
Total range of Plant potential through-put	5000-8,000

A maximum through-put is estimated to be no more than 10,000 tones

o current population trends, if a specified population is to be served by the development; and

- The present population of the area of Morden and Winkler is increasing rapidly – this project is not planed to process all the carbon waste that is produced in the area however it is expected that further micro plants will be considered in the very near future once the system has been demonstrated and proven.

o reference to previous studies and activities relating to feasibility, exploration, or project siting and prior authorization received from other government agencies.

----------Pembina Valley Containers operated by Dave Weiss of Morden already has contracts in place to pick up and transport waste to the landfill in the area. ---------- has committed to process all of their waste product through this facility – about 1200-2000t per year.

Obviously Reduction of landfill that produces an "inert soil/compost/fertilizer" is more desirable, on any scale or level of environmental management, than depositing the waste in the landfill.

The process will:

1. Do this faster than any system existing in the world today
2. Do this more efficiently than any other system
3. Make some profit from the same land fill fees that apply in the Morden area today
4. Use more (and all) waste streams – as never before achieved
5. Have more control over blending and overall management of "nutrient value"
6. Significantly reduce the CARBON FOOTPRINT of the multiple, environmental "unfriendly" existing processes, closer to the source.
7. And finally produce a higher quality product than ever before.

Key Goals /Attributes:

A. To establish a local Morden company to process selected, organic waste (as described above) that is presently being delivered to land fill in an untreated state, this practice is generally considered as "less than IDEAL for the environment" and potentially harmful in other ways over time.
B. To demonstrate to all; the desirability of this process for larger scale and other applications across the continent and the Globe.
C. So far there is no evidence of a parallel process being used anywhere around the world, although many countries and especially UK and the EU have many millions of tonnes being treated "in-vessel" **they all are 10-14 day processes** and tend to only treat commercial and residential "food waste" not green waste, they do not have a process that satisfies the ability to incorporate livestock mortalities.
D. Further CFIA have been contacted, consulted for application of a licence to transport and process the meat waste and dead stock. The process WILL have a multi level, fail safe process to separate the Specific Risk Material (SRM) and any other potentially designated "high risk" material to be processed completely separately. This starting from source, based upon strict "Standard Operating Procedures" (SOP's) will be recorded and monitored through a multi level, duplicated, redundant, audit and documentation process, that identifies any such material at source and any potential system failure to separate it from the main stream of feed stock.
E. Should the compost be spread on fields; a Manitoba Conservation "manure spread plan" can be submitted (If required). This application will be based upon, a broad "Standard Operating Procedures Manual", and will incorporate an ongoing ridged standard, regardless of what "final status" the end product is categorized by CFIA and MB. Conservation - "The Procedures" manual will incorporate;
    i. "Meat plant process tracking, recording and Identification"
    ii. Full legal process will be followed according to both CFIA and Manitoba Conservation's requirements.

iii. "Transportation process, continued tracking and recording"
iv. “In-vessel” compost plant processing, tracking, Identification, handling
v. Final destination record
vi. For both streams logs and full audit and tracking processes will identify each lot and date and process stream utilised all the way through to the final destination for each stream.

F. Mainstream feed stock will be delivered to the plant in sealed containers or covered truck or both. Meat waste will be in a bin with a sealed lid and directly loaded into the machine where it will be blended with other "green and carbon feed stock" and then sealed for the in-vessel process.
G. The vessels exhaust air through three filters Water, Carbon material and then "vapour spray disinfectant" - if needed.
H. The maturing area and ventilation of the plant will be run through the same filtration process in the same or a parallel system.
I. All product will be "cooled and cured", stored inside, and ultimately outside (sheltered by tarp or roof in bunker), or shipped directly to consumer to be finally spread on fields or bagged for sale. SRM stream processed material shall be stored and cured inside and used as fuel or shipped to a registered landfill site.
J. Main stream product is modified with light dry carbon material such as chopped straw and or flax chives etc. then unloaded to a holding bunker (inside) to cool and mature for up to 3 - 8 days and may be stored inside for longer periods depending on logistics then either loaded and sold to local farms in bulk or blended and bagged for retail.
K. The second production line that is produced from the “Specific Risk Material” delivered, processed and stored in a completely separate stream will be utilised either for combustible material in an onsite incinerator to provide heat for the machines or as per (j) above and sent to land fill instead of used as fertiliser.
L. *Quantitative information on the volumes or amounts of products or services as applicable;* are provided in “Tables 1&2”
M. *With reference to previous studies and activities relating to feasibility, exploration, or project siting and prior authorization received from other government agencies*: Although the general practice of “dead stock” composting is well documented and regulations in place, Manitoba Conservation, the inclusion of food waste and green waste and the rapidity of the process tend to make this “definitely a “FIRST” in certain areas but the fundamentals ARE well proven ----------

It is important to emphasize that all meat plant product will be delivered by separate bins, the SRM is separated at source and sealed and then documented and tracked by multiple processes backed by “fail safe” physical, paper and audit checks as well as final visual checks. A “LOT” inventory recording and tracking system will have the approval of the CFIA and provides a unique level of security to the process of maintaining a completely verifiable SRM tracking system.

3. Section
Description of Proposed Development/Process

including construction, operation, maintenance, and decommissioning if applicable

• _Certificate of Title showing the owner(s) and legal description of the land upon which the development will be constructed; or, in the case of highways, rail lines, electrical transmission lines, or pipelines, a map or maps at a scale no less than 1:50,000 showing the location of the proposed development.

> The building is owned by 3337601 MANITOBA Ltd. Of Morden Manitoba. The Contact for the Company is ----------
The Address is 41 Jefferson St. Morden Manitoba R6M 0B8 CANADA and Enviroclean Landfill Solutions Ltd/6204198 MANITOBA LIMITED has a 5 year lease agreement with 3337601 MANITOBA Ltd. PLEASE SEE appropriate Appendix "j" for copy of Title

• _Owner of land upon which the development is intended to be constructed, and of mineral rights beneath the land, if different from surface owner.

> Land and building owned by same company and the building already in situ.

• _Existing land use on the site and on land adjoining it, as well as changes that will be made in such land use for the purposes of the development.

> Town of Morden Industrial Park all neighboring sites are zoned as "Heavy industrial"

 _Land use designation for the site and adjoining land as identified in a development plan adopted under *The Planning Act* or *The City of Winnipeg Act*, and the zoning designation as identified in a zoning by-law, if applicable.

> TOWN OF MORDEN: ZONED MG - "INDUSTRIAL - GENERAL"

 _Description of proposed development and schedule for stages of the development, including proposed dates for planning, design, construction, commissioning, operation, and decommissioning and/or termination of operation (if known), identifying major components and activities of the development as applicable (e.g. access road, airstrip, processing facility, waste disposal area, etc.).

> PROPOSED START DATE: November15th 2011 for test runs and initial machine start up. Full production By December 1st – 15th 2011

 _Funding, including the name and address of any government agency or program (federal, provincial or otherwise) from which a grant or loan of capital funds have been requested (where applicable).

> All funding of the business----------

• _Other federal, provincial or municipal approvals, licenses, permits, authorizations, etc. known to be required for the proposed development, and the status of the project's application or approval.

> Town of Morden : Approved.
> CFIA license to Collect, transport and process SRM – SOP's in progress and indication based upon discussions are that a license is readily available for the project as described.

• _Results of any public consultations undertaken or to be undertaken in conjunction with project planning.

> NONE, other than Town of Morden and businesses in the area.

Description of Existing Environment in the Project Area
• _The biophysical environment as related to the development, including topographic and base maps and aerial

photographs as necessary, as follows:
- description of the local area and regional setting including important terrain features such as hills, valleys, lakes, rivers, shorelines, etc;
- description of the prevailing climate and meteorological conditions, and identification of any nearby climate monitoring stations;
- identification and description of local and regional surface waterbodies (lakes, rivers, wetlands, etc.) and description of the regional groundwater conditions including aquifers, recharge areas, quality, wells, etc;
- description of the aquatic environment including fish resources, fish habitat, benthic invertebrates, aquatic macrophytes, etc. for each waterbody that could be affected by the proposed development;
- description of the terrestrial environment including vegetation, wildlife (mammals, birds, amphibians, reptiles, etc.), wildlife habitat, etc. that could be affected by the proposed development;
- identification and description of any rare, threatened or endangered species or any important or sensitive species and/or habitats, particularly if federally and/or provincially protected; and
- identification and description of the existing land and resource uses in the region including agriculture, forestry, mining, hydroelectric, oil and gas, recreation, tourism, etc.

> PLEASE REFER TO SECTION 5 and Figure D - "DESCRIPTION OF ENVIRONMENTAL EFFECTS OF THE PROPOSED DEVELOPMENT"

 _The socioeconomic environment as related to the development, including topographic and base maps and aerial photographs as necessary, as follows:
- identification of any existing public safety and health risks in the development area;

> The products identified that demand caution are Gasses: H_2S, NH_3 and CH_4 and pathogens that may be present in meat and dead animals. These items are well covered with contingencies such as filters, heat in the machines and a high level of good "house keeping practice". Predominantly the safety issues surrounding these factors is most important to the people who work around the equipment and in the plant. The general Public should never be at risk from any issues involving these things. An abundance of precaution is already planned with the acknowledgement that if we protect the people working in the plant with good and also redundant, systems in place to back the, already low risk overall system then the general public shall never be at risk. Negligence with even the most innocuous processes can cause harm, therefore we accept that one can never allow for that attitude to prevail.

Other than the above possible odour which is the highest perceived harm and again as mentioned in this presentation much has been put in place to assure a very acceptable system in this area of concern. The other perceived harm would come from unacceptable run-off or seepage from the cured product, again this is mitigated by; fully processing, fully cooling and curing, testing and ongoing observation and recording logs of stored product.

- identification and description of protected areas (e.g. national and provincial parks);

> NONE CLOSE

- heritage resources (e.g. archaeological and historic sites), etc;

> NONE CLOSE

- identification of First Nation communities in the vicinity of the proposed development.

> NONE

Existing environmental information may come from sources such as site visits, previous studies, environmental databases, baseline data, ecological land classification, and traditional ecological knowledge.

> Once the process has been observed it is more readily accepted that the rapid timeline, does represent the longer, more common time and process and that the product is, after cooling, extremely similar to a regular compost that has been cured over 12 weeks or so. However this product tends also to be finer and of a more consistent texture. All base line data on 12 week composted data applies to this product at

this point.

Description of Environmental Effects of the Proposed Development

 _Potential impacts of the development on the environment, including, but not necessarily limited to:

- impact on biophysical environment, including wildlife, fisheries, surface water, groundwater, and forestry resources;

  > It is anticipated that there will be no ill effects even the highly unlikely potential of a situation of minimal surface water run off risk is covered by the contingencies in place as per TABLE 5 titled: Issues, Causes and Remedies

- type, quantity and concentration of pollutants (emissions, effluents and solid wastes) to be released, and the technologies proposed to contain or treat the waste streams;

> As per the Table "4" below there are levels of Methane in significant amounts(at times) that may be exhausted through the filtration system. The goal is to incorporate the ventilation air from the machines through the incinerator that burns the dried, composted SRM and also the methane. This may or may not be a feature that is installed immediately. The goal to reduce the green house gasses as well as reclaim valuable "natural fuel" is in the immediate to intermediate plan.
Ammonia is the next gas to be handled and this has been sufficiently accounted for with the filtration system and again will be further reduced when used as the "forced air feed" via the incinerator.
Hydrogen Sulphide, although produced in extremely low and safe amounts, this gas shall not be overlooked as a potential hazard – mainly to workers in any confined space, it has been fully reviewed for any potential human danger and systems (e.g. ventilation) and procedures (SOP's) will incorporate all possible safety precautions. As far as nuisance, by of odour issues from H_2S in the immediate are of the plant – this is simply not an issue given the small amount produced and the pre-exhaust filtration.

- information on the storage, transportation and disposal of any hazardous wastes that may be produced;

> No "Hazardous material" anticipated other than the special category for Compost or ash material from the SRM "Side" of production, this will either be certified by CFIA's requirements and licensing as "non SRM" or, if not, disposed of in a certified landfill.

- identification of any storage of gasoline or associated products (e.g. diesel fuel, used oil, heating oil, aviation gas, solvents, isopropanol, methanol, acetone, etc.);

> None anticipated

- impact on heritage resources;

> None anticipated

- socio-economic implications resulting from environmental impact; and

> No adverse effects anticipated but Jobs and significant landfill reduction on the positive side.

- climate change implications including a greenhouse gas inventory calculated according to guidelines developed by Environment Canada (http://www.ghgreporting.gc.ca/GHGInfo/Pages/page15.aspx)

> As per the guidelines on the reporting criteria in section 2.1 of the latest Published Gazette (2010) for Technical Guidance on Reporting Greenhouse Gas Emissions this project is not anticipated to meet the minimum level required to report based upon the following –

"CO2 emissions from biomass materials, as further discussed in Section 3.4, must not be included in the threshold calculation. However, if a report is required, CO2 emissions from biomass combustion must be quantified and reported separately as part of the reportable GHG information (see Section 4). Methane (CH4) and nitrous oxide (N2O) emissions from biomass-related sources must be included in the reporting threshold calculation, and reported if a report is required."

At present we do not expect the level of 50 kilotonnes of CO2 will be produced from this plant.

This criteria and the Section 3.4 will be fulfilled, upon

1) **Instruction to do so by Manitoba Conservation or:**
2) **Our calculations, based upon actual production, showing that production success i.e. greater production through-put achieves the process level that meets the "minimum reporting level of 50 kilotonnes of CO2 equivalent (50 kt CO2 eq)." As per the report page 3 2.1 – "Reporting Criteria"**

Mitigation Measures and Residual Environmental Effects
 _Proposed environmental management practices to be employed to prevent or mitigate adverse implications from the impacts identified above, having regard to, where applicable:

- mitigation incorporated at the planning and design stages;
- containment, handling, monitoring, storage, treatment, and final disposal of pollutants;
- conservation and protection of natural or heritage resources;
- environmental restoration and rehabilitation of the site upon decommissioning; and
- protection of environmental health.

> All the above either are not applicable or covered, in detail, elsewhere within this document, in specific and in general.

 _Residual environmental effects remaining after the application of mitigation measures, to the extent possible expressed in quantitative terms relative to baseline conditions.

> NO recordable, residual effects anticipated.

 _Description of control technology as compared to best available control technology.

> There is no system, in the world, so far identified, that is currently achieving the process speed, efficiency and scope of this project.

Follow-up Plans, including Monitoring and Reporting
• _Proposed follow-up activities that will be required at any stage of development (e.g. monitoring, inspection, surveillance, audit, etc.)
As per previous sections, rigorous monitoring, inspection and surveillance shall be our key tool to eliminate any possibility, however small, of negative effect upon the environment or the public or workers in the plant. We also anticipate much mutual interaction with all stake holders in the interest of the environment and waste processing, including, but not limited to Manitoba Environment, CFIA, Ag Canada, Manitoba Municipalities, California State University (CSUC), U of Alberta and many other "interested parties". We welcome input and discussion and will be keen to implement any suggestions any parties would suggest to make this system better in any way.

We fully anticipate that we will research many interesting and future applications of this technology. Among these applications of interest are:

- To monitor and identify type of emissions and greenhouse gas emissions
- Reduction utilization and mitigation of the above
- Product mixes for quality and efficiency
- Fertiliser maximisation and consistency for "farm scale" use
- ----------
-
- ----------
- Pathogen destruction
- Ongoing auditing of our two streams to mitigate any possibility of cross over of SRM and Fertilizer.
- ----------) and ongoing communication with Manitoba Conservation and CFIA are anticipated to further refine, advance and grow our processes and improve the environment, in the most beneficial and responsible pursuit of excellence for our business.
- Many other environment benefits.

4. Section

PROCESS METHOD and Background

The present proposal is based upon using six, four ton machines. The process is totally tried and tested on ALL proposed waste products.

BACKGROUND:

Mr. Milne, Mr. Booy and others including Dutch Industries from Regina Saskatchewan have been running machines that use this process for the past eight years predominately with farm dead stock. Demonstrations to many government departments, farming and industry people involving a wide range of product and mixes have been given including, but not limited to:

The US EPA, Minnesota Department of Transportation (road kill deer), Stomp Pork farms, Winkler Wholesale Meats, Department of Veterinary Medicine and Animal Health Beijing China, CFIA Canada representatives, Saskatchewan and Manitoba Agricultural Representatives, Canadian Imperial Bank of Commerce and many other individuals.

The process is very quick – especially for plant carbon material more so than dead animals. Dead animals mixed with plant carbon material, has been continuously proven to be "mature within 48 hours, having been established after literally hundreds of batches. Anecdotally, wildlife (e.g. Dogs) and another good indicator; flies are not attracted to the final product even when immediately taken from the machine.

The exceptional thing about this project is that the variety of material (waste) to be processed has never been combined in one process elsewhere. The incorporation of the RAPID Biological Digestion (RBD) process is a unique sealed vessel to cause an extremely rapid degradation of the material BEFORE any petrification of the material has happened.

Composting is a process known to all as a slow and awkward process with widely variable results. The "RBD" process incorporates a similar process as regular composting only much faster and efficiently. The equipment maximizes the bacteria break-down of organic material through producing enzymes that break down proteins. The heat, agitation and some crushing of larger material such as bones, helps to produce a fine "mulch" very quickly. The machine creates the precise environment, temperature and other products needed to maximize this process. Depending on the product processed and the timing of the process it can be used as a high power fertilizer, high energy clean burn fuel ----------

One machine will be dedicated to the processing of SRM from meat plants. This material provides a high revenue per ton processed and will follow careful standards of process and tracking to provide the appropriate requirements by the government (CFIA). The advantages of this are many but mostly producing a non-perishable, non-pathogenic, product provides a 50 - 60 percent reduction in weight and volume. This provides a very high quality product that is very suited to total destruction by high heat incineration at levels of efficacy and efficiency needed to destroy prions if desired.

With this innovative process a very significant increase of success in safety, efficiency and of a total, fail-safe pathogenic destruction can be achieved, based upon the ability to **reduce the product in volume, moisture and particle size**.

Logistics of waste stream:

Table 3

Source	Mode	Time to process	Direct to machine Y	N
Restaurant Supermarket food	Waste Skip	8-12 hours	X	
Green Waste	Bulk (some bagged)	12 hours	X	X
Rendering Plant	Covered Bin	48 hours	X	
Dead Animal	Delivered Bulk/Bin	48 hours	X	
Industrial/Farm Wood/Sawdust/Chips Flax Chives Straw	Waste Skip - Storage	12 hours		X

All products except some green waste, will all be delivered and either deposited directly into the machines or dumped into the load in bunker and then directly loaded to the machines within a maximum of 8 hours. Green waste will be drawn from storage in piles over time. Priority to high moisture product will be given.

Generally green waste will be supplied in greater volumes during fall and spring, being drawn down over Winter and Summer. GREEN WASTE for the Town of Morden is already stored in an adjacent lot (closer to the residences in the area). This process will improve on process timing and coordinated handling of this particular product. The coordination and processing volume of incoming green waste shall be matched to the ability of the plant. Long term (longer than 6months) storage of any product is not planned.

Figure A