APPENDIX X

MESHTECH

Birett, Philip

From: Mike Starodub [mikes@meshtech.ca]
nt: July 20, 2007 8:57 AM
: Birett, Philip
Cc: Ken Smith
Subject: RE: Incinerator Request For Information
Importance: High
Follow Up Flag: Follow up
Flag Status: Red
Attachments: 07-03-20_Orverter Features Summary.doc; 07-05-16_Ash Analysis.pdf; 07-04-15_CFIA Ash Analysis Letter.pdf

Hi Philip,

In response to the RFI, I am attaching several documents as I was not able to add our comments into the PDF directly. Included in the attached documents is an Orverter Features Summary that addresses many of the areas in the RFI, as well I have attached recent ash analysis (testing for protein specifically) as per the CFIA. We had two (2) ash samples tested by the CFIA in April and May of this year and both came back negative for protein (no protein = no prions).

In terms of CFIA regulations, the Orverter is designed to operate in the range of 1,100 to 1,400 Degrees Celsius, with two (2) seconds retention of flue gases in the secondary combustion chamber. Ash extraction would occur approximately every 90 to 120 minutes, which would ensure all materials have a long residence ' in a high temperature region (again, our ash analysis for protein verifies the material is in the processor long enough to destroy proteins/prions completely)

Other information:

1. Orverter sizes: 225 kg/hour – 450 Kg/hour (we also have a 900 kg/hour – 1,800 kg/hour)
2. Foot print: for the 225 – 450 Kg/hour unit – the footprint is approximately 20 ' x 40 ' x 50' in height (the stack is the highest point)
3. Budget costs for the 225 kg/hour is approximately $2.5 Million ; the 450 kg/hour is $4 Million
4. Operating costs – approximately $100,000/year and includes the following
    - Labour – $20,000
    - Repair – $50,000 - amortized cost for refractory rebuild after 5 to 7 years
    - Ongoing emissions monitoring - $20,000
    - Electricity - $10,000
5. Fuel – the Orverter uses a small amount of propane, or natural gas, at initial start-up to properly heat soak the high temperature refractory. Once the unit is up to temperature and starts processing the waste materials, it **does not require any fossil fuels** to sustain its' continuous operation.
6. Options:
    - Feed Ram – N/A – The Orverter is a gravity fed technology designed for continuous operation.
    - Ash management – the control system will manage the ash produced by the system.
    - Outload – N/A
    - Waste oil burner – N/A
    - Feed weigh scale – available
    - Mobilization upgrade – available with custom modifications required

ip, if you have any questions, or require further information, please do not hesitate to contact me, or my colleague Ken Smith directly (Ken's cell is 204-291-1245).

We thank you for you r time and consideration.

Kind regards,

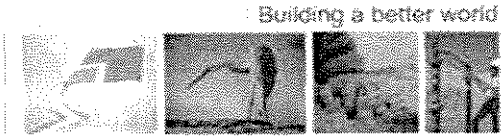
Mike Starodub, P.Eng
V.P. Sales & Marketing
RES/OP Technologies Inc.
204-831-0351 Office
204-782-0892 Cell

From: Birett, Philip [mailto:Philip_Birett@golder.com]
Sent: Wednesday, July 04, 2007 1:29 PM
To: Mike Starodub
Subject: Incinirator Request For Information

Mike,

My name is Philip Birett of GAIA Contractors. I have been commissioned by the Livestock Waste Tissue Initiative of British Columbia to prepare a report on available incinerator technologies. Please read the attached RFI and call me at your earliest convinence.

I Birett
Tel: (604) 296-2753
Cell:(778) 229-2898
Fax: (604) 298-6641
http://www.gaiacontractors.com



GAIA is the wholly owned contracting subsidiary of Golder Associates Ltd. and has operating centers in Mississauga, Montréal, Ottawa, Sudbury, Calgary and Vancouver.

Orverter Features, Applications and Benefits Summary

The Orverter™ (ORganics conVERTER, patent pending) is a proven, revolutionary process that converts organic material into high grade heat, all **without fossil fuel** or any other supplemental heat inputs. Organic materials range all the way from biomass (vegetable and animal materials) through engineered materials (PCB fluids, plastics, etc.) to municipal, industrial and medical wastes (including sewage sludge, waste oils, pesticides, etc.).

The Orverter first converts all feedstock to the three fundamental components that result when organics are heated to temperatures above 400°C (750°F); carbon (charcoal), product gas and water vapour. The Orverter uses the carbon and product gas as its' fuel to sustain the high operating temperatures.

Orverter components in high temperature regions are either structural ceramic or refractory materials that have been developed in recent years. These materials allow operation at temperatures well above 1,370°C (2,500°F). Traditional organic combustion systems (incinerators and gasifiers) are limited by the melting point of iron alloy grates, thus normally operate below 1,100°C (2,000°F).

The Orverter operates in a negative pressure environment thus it emits no odours or smoke, only a clean, high temperature gas stream that can be used directly for site/process heating, steam generation, absorption chilling, etc.

Commercial versions of the Orverter will exceed current Canadian standards for hazardous organic waste destruction (1,205°C or 2,200°F, with 2 second flue gas retention) as well as the European Union standard for destruction of BSE prions (850°C or 1,600°F with 2 second emissions retention). The Orverter requires no feedstock preparation, no drying of feedstock, and no feedstock quality management.

The Orverter is applicable to the complete range of market applications from small, organics destruction/energy generation installations through large, multi MegaWatt combined waste disposal-heat and power plants.

Applications:

The following is a list of the more readily identifiable prospective applications for the Orverter's biomass and organic destruction capabilities.

- Food processing waste (e.g. slaughterhouse SRM's ,offal, rendering "cracklings")
- Whole deadstock (avian, ruminant, swine, ovine)
- Livestock operation waste (e.g. manures)
- Agricultural crop residue
- Forestry residue
- Municipalities (e.g. solid waste)
- Sewage treatment plant sludge
- Hazardous wastes (e.g. medical and pesticides)
- Industrial wastes (e.g. PCBs, benzenes, plastics and organic chemicals)

Orverter Features, Applications and Benefits Summary

Orverter Benefits:

All future versions of the Orverter will encompass proprietary design features which yield substantial benefits over other systems, as follows:

- Efficiency – Operating at higher temperatures (up to 1,370°C or 2,500°F) **without the need for fossil fuels** (coal, natural gas, diesel) to sustain operation.
- Odours - the system operates in a negative pressure environment with no leakage to the outside, thus no odours.
- Simplicity – A fully automated and self-sustaining technology translates into ease of use with a minimal labour component.
- Scalability – Orverter projects can range from small organics destruction/energy generation to large multi Mega Watt waste disposal/power plants.
- Flexibility – Orverter operation is sustainable with biomass feed stocks containing up to 45% (average) moisture, while emissions remain GHG (Green House Gas) neutral.
- Emissions - No emissions controls are required when processing biomass feedstock.
- Material handling - No requirement for shredding, drying or quality management of feedstock.
- Financial – **Simple payback** potential of 4 **years or less** where 75% of thermal energy output can be used to offset fossil fuel and/or electric heating energy costs.

Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

National Centre for Foreign Animal Disease Laboratory
1015 Arlington Street
Winnipeg, Manitoba R3E 3M4

April 19, 2007

Mr. Mike Starodub
c/o RES/OP Technologies Inc
15-395 Berry Street
Winnipeg, Manitoba R3J 1N6

Dear Mr. Starodub:

RE: Testing of Incinerator Ash For Sterility and Protein Content

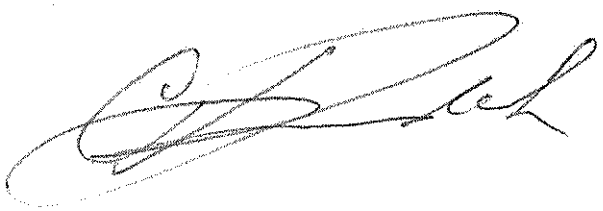
On April5, 2007 a large sample of "ash" was presented to the National Centre for Foreign animal Disease laboratory for the specific purpose of determining the sterility of the sample material as well as the residual protein content of the sample.

The sample material was transferred to the Pathology Unit of NCFAD wherein a microbiological assessment was completed on several agar plates in order to determine the presence of any microbiological agents. The sample was determined to be sterile based on zero growth on the various agar plates.

The same material was subjected to the SDS PAGE test in order to determine if there was any protein material present in the sample. The solubilized sample from approximately 1 gram of ash in 500 ul of SDS PAGE running buffer and heated to 70 degrees C for 10 minutes. 20 ul of material was loaded on a 12% Gel and run@ 150 volts for 1.5 hours. The gel material was rinsed for 30 minutes @ RT in Milli Q water then stained with Coomassie stain. Coomassie stain sensitivity is at 5 - 10ng. No additional testing for protein material was perscribed as the SDS test was found to be completely negative.

If there are any questions or concerns regarding these procedures, please do not hesitate to contact me.

Regards,



C. Kranendonk BSc(Agr), DVM, Dpl VM
Diagnostic & Training Co-ordinator
National Centre for Foreign Animal Disease
1015 Arlington Street
Winnipeg, Manitoba, R3E 3M4
Telephone (204) 789 - 2012

Fax: (204) 789 - 2038
E-mail: ckranendonk@inspection.gc.ca

Canadian Food Inspection Agency | Agence canadienne d'inspection des aliments

National Centre for Foreign Animal Disease Laboratory
1015 Arlington Street
Winnipeg, Manitoba R3E 3M4

May 22, 2007

Mr. Mike Starodub
c/o RES/OP Technologies Inc
15-395 Berry Street
Winnipeg, Manitoba R3J 1N6

Dear Mr. Starodub:

RE: Testing of Incinerator Ash For Sterility and Protein Content

On May 16, 2007 an "official" sample was taken by the author, in order to determine the presence of any protein content in a post-incineration sample originally comprised of two containers of slaughter plant offal – including SRMs, as well as a quantity of post-rendered "cracklings" solids. The sample was taken at site, by removing the surface layer, and scooping 200 grams of 'ash" in a sterile ziplock bag and re-bagged once again in a ziplock bag. The sample was identified as to site, date, time, material and originator of sample. The sample was hand-delivered to The National Centre for Foreign Animal Disease Laboratory in Winnipeg.

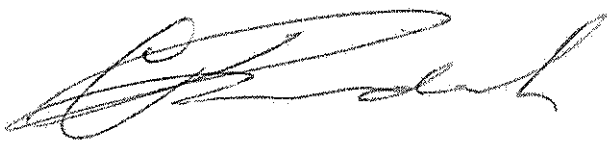
The sample material was transferred to the Pathology Unit of NCFAD wherein a microbiological assessment was completed on several agar plates in order to determine the presence of any microbiological agents. The sample was determined to be sterile based on zero growth on the various agar plates.

The same material was subjected to the SDS PAGE test in order to determine if there was any protein material present in the sample. The solubilized sample from approximately 1 gram of ash in 500 ul of SDS PAGE running buffer and heated to 70 degrees C for 10 minutes. 20 ul of material was loaded on a 12% Gel and

run@ 150 volts for 1.5 hours. The gel material was rinsed for 30 minutes @ RT in Milli Q water then stained with Coomassie stain. Coomassie stain sensitivity is at 5 - 10ng. No additional testing for protein material was perscribed as the SDS test was found to be completely negative.

If there are any questions or concerns regarding these procedures, please do not hesitate to contact me.

Regards,



C. Kranendonk BSc(Agr), DVM, Dpl VM
Diagnostic & Training Co-ordinator
National Centre for Foreign Animal Disease
1015 Arlington Street
Winnipeg, Manitoba, R3E 3M4
Telephone (204) 789 - 2012
Fax: (204) 789 - 2038
E-mail: ckranendonk@inspection.gc.ca