

Beshada, Eshetu (CWS)

From: Ron Giercke [<mailto:rongiercke@prontoenergygroup.com>]
Sent: February-24-16 1:11 PM
To: Beshada, Eshetu (CWS)
Cc: James Dufresne; Del Dunford
Subject: 16-02-24_Mar 5 ROC Feedstocks Demonstration-T-EB-c-JD-DD

Hello Eshetu,

We are planning a ROC technology demonstration for several individuals (city of Winnipeg mayor and councilor as well as a Winnipeg Free Press reporter will be invited) at Tritec Concrete's site in St. Eustache Manitoba between 1:00 and 3:30 P.M. Saturday, March 5, 2016. In addition to biomass feedstocks, we would like to process small quantities (**5 pounds maximum each category; 30 pounds total**) of other materials to show the preeminent ROC capability for completely and safely destroying the following organics:

1. rubber tire / conveyor belt / other rubber product pieces
2. polyethylene / other like plastic materials
3. waste oil / lubricants / and like
4. old clothing / shoes / textile remnants
5. paint / lacquers / thinners / and like
6. cleaning solvents / rags / gloves / and like

ROC operating temperatures will be the same or higher than a previous prototype when processing rail tie pieces (please see attached UofM and BOMA Environmental test reports). Any interest in observing conversion of significant non biomass organic quantities will initiate our submission of a formal feedstock specific request to your office, including requisite test protocol and third party emissions testing of a 5 tonne maximum quantity.

We see no environmental issues due to the small quantities of non biomass materials we would like to process during our demonstration and attached emissions test results from proximate 400 pounds of chemically treated rail tie pieces. **We invite your opinion before processing the proposed non biomass materials.**

Regards,

Ron Giercke,

President, intyc inc. / Tritec ROC Science & Applications consultant

rongiercke@prontoenergygroup.com Office: 204-414-1426 Mobile: 204-793-5805

NOTICE - This message from intyc inc. / Tritec ROC is intended only for the use of the individual or entity to which it is addressed and may contain including attachments, information which is privileged, confidential or proprietary. Internet communications cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, arrive late or contain viruses. By communicating with us via e-mail, you accept such risks. When addressed to our clients, any information, drawings, opinions or advice (collectively, "information") contained in this e-mail is subject to the terms and conditions expressed in the governing agreements. Where no such agreement exists, the recipient shall neither rely upon nor disclose to others, such information without our written consent. Unless otherwise agreed, we do not assume any liability with respect to the accuracy or completeness of the information set out in this e-mail or attachments. If you have received this message in error, please notify us immediately by return e-mail and destroy and delete the message from your computer. www.tritecroc.com

From: "Wayne Buchannon" <buchann@Ms.UManitoba.CA>
To: <jamesw@meshtech.ca>
Sent: Tuesday, April 19, 2005 10:26 AM
Subject: Wood and ash samples

Hello James

I have done a GC-MS analysis on the rail road tie sample and the ash sample you sent to me. Please give me a call so we can discuss the results.

Basically what I observed were hydrocarbons, coal tar type compounds, and pentachloro phenol in the tie sample and essentially nothing in the ash sample except for two very small peaks (definitely not pentachlororphenol) which I have not yet been able to identify. Time permitting I will have another look at these.

Wayne

Wayne D. Buchannon
Mass Spectrometry Lab.
513 Parker Bldg.
Chemistry Dept.
144 Dysart Rd.
University of Manitoba
Winnipeg, Manitoba
Canada
R3T-2N2

v 204 474-6248
f 204 474-7608

ROC COMPARISSON with 2010 Manitoba Environmental Limits

Stack gas component	Unit	BOMA measured stack values during test diluted to 91% ambient air, 9% stack gas	ROC stack gas fractions before dilution	Manitoba Regulation s (March, 2010)	ROC values relative to MB enviro- nmental limits
Water	Vol.	1.30%	14.36%	NA	NA
Oxygen, O ₂	Vol.	20.30%	13.77%	NA	NA
Carbon Dioxide, CO ₂	Vol.	0.60%	6.24%	NA	NA
Carbon Monoxide (CO)	Vol.	0	0	57 mg/Rm ³	0%
Carbon Monoxide (CO)	ppm	0	0	57 mg/Rm ³	0%
Nitrogen oxides (as NO ₂)	ppm	3.0	33.15	400 mg/Rm ³ = 212.6 ppm (<i>by weight</i>)	15.59%
Molecular weight, dry	kg/kg-mole	29.0			
Molecular weight, wet	kg/kg-mole	28.8			