



Kevin Hull
Emergent Waste Solutions
4011 Viking Way Unit 240
Richmond, B.C. Canada V6V 2K9

April, 15, 2015
University of British Columbia

Re: Magnum Group/Emergent Waste Pyrolysis System

Dear Mr. Kevin Hull:

This letter is a statement of my intention to participate in the proposed Public Private Partnership between the University of British Columbia and Emergent Waste Solutions who will construct, operate and conduct research at, a pyrolysis facility on the UBC campus.

Thank you for the opportunity for ABB to assist with the proposed Pyrolysis System Project. We feel we can assist with the following:

1. Add ABB engineering and controls technology to a good continuous process
2. Offer a turnkey package for Process Control, Control Room and Power Systems
3. Help add credibility to the EWS process once completed.

What is unique about the proposed system is three fold:

- A. This system is pressure neutral. This lends itself to a much safer operation than high pressure or high vacuum operation
- B. The system uses steam injection which more effectively permeates the biomass and helps keep the system from being shut down due to fouling.
- C. This operation is not batch but a continuous process. In the gasification world it is always better to be able to continue the process repeatedly to insure or even improve results.

It is also our experience that the business model for these projects is enhanced when the process can be applied to multiple feed stocks. While we have not built or tested this one, the technology lends itself to a variety of carbon materials.

Feel free to call me if you have any more questions.

Best of regards,

Nicholas Masucci
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