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News Release News Release News Release News Release

Innovative Logistics Solutions, Inc. (ILS) is pleased to announce that the Pyromex Ultra-High Gasification technology, being marketed and supported in North America by ILS, has been selected by the European Community Energy, Environmental and Sustainable Development Program as "*the only suitable system available on the market today*". Excerpts from the report are attached.

You will notice in the final report, the study group focused on hard-to-treat, non-recyclable organic waste like automobile shredder residue (ASR), sewer sludge, organic industrial waste and municipal solid waste. Treatment and pelletizing of these waste material is also addressed in the study, however it should be noted that the Pyromex technology does not require pelletizing and can accept these materials in their original non-treated, non-pelletized form.

This report provides independent validation that the Pyromex technology provides a unique state-of-the-art solution to the challenges associated with the disposal of these difficult waste streams in an environmentally safe way, while creating renewable energy as a by-product. The following page contains a number of excerpts from the report and a full copy of the report will be made available on request.

The study results substantiate the significance of the introduction of the Pyromex technology in the North America market. Additional information can be obtained on both the www.ils-partners.com and www.pyromex.com web sites.

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EU Committee for Energy and the Environment final report summary

Background:

The original objective of this study was to focus on pelletizing technology for the production and energetic utilization of pelletized secondary fuels from hard-to-treat, non-recyclable waste like automobile shredder residue (ASR), sewage sludge, organic industrial waste and municipal solid waste.

The project was organized as a co-operative (CRAFT) EU project with 5 small and medium sized enterprises (SME) from 4 European member states and 2 research and technology developing (RTD) institutes. The SME partners of the consortium provided solutions of gasification waste management and process control technologies. The RTD provided intelligent process control technologies, chemical analytics and environmental engineering.

During the project the specified target for the combustion of the fuel pellets was missed causing the project to focus on the Pyromex ultra high temperature gasification technology and process.

Study Excerpts:

“In ultra high temperature gasification it has been shown, that at temperatures of above 1200 degree's centigrade that there are almost no tar in the synthetic gases. The produced synthetic gas can ideally be used in a gas motor for combined production of heat and power. As the amount of hydrogen has been up to 50% in volume of the resulting synthetic gas at gasification temperatures of 1440 degree's centigrade, a future option on hydrogen separation is possible.”

“Despite increased efforts in the EU member states to reduce the amount of waste (or trials to recycle it), the question for an economical and ecological solution for hard-to-treat, non-recyclable waste like automotive shredder residues (ASR) from end-of-life vehicles, industrial wastes, sewage sludge or even municipal solid waste (MSW), is still unanswered. The option of landfill disposal of organic waste is linked to irritation by unpleasant odors, destruction of the landscape, possible ground water contamination and the danger of explosions through uncontrolled gas formation caused by the high organic content of the material deposited.” (Note: This same situation exists in North America)

“The production of clean energy from non recyclable organic waste by thermal treatment is a possible solution to this problem, substituting fossil fuels for energy production and leaving inert residues of lesser volume.”

“The replacement of fossil fuels with refuse derived fuels is politically desirable as it will strengthen the independence from foreign energy supplies, which are mostly located in problematic geostrategical regions. The replacement of fossil fuels with renewable energies or secondary fuels results in a more sustainable development as the possible use of fossil fuels will be prolonged for future generations or they can be used in a more valuable form e.g. in materials production.“

"Due to the unique features of the ultra high temperature gasification process and special knowledge that has been available with the Consortium, the project concentrated on this energetic utilization method. It was confirmed that the Pyromex ultra high temperature gasification technology is the only suitable system available on the market today."

"One of the initial targets of the project, to produce fuel pellets, that bind halogenides during combustion to decrease the effort for exhaust gas treatment, has not been met. For this reason, the project concentrated on an ultra high temperature gasification method developed by one of the SME-partners for the energetic utilization step This method processes the wastes at temperatures above 1200 degrees of centigrade, destroying all harmful substances under gasification conditions (absence of oxygen) and produces a synthesis gas, which is rich in hydrogen."

"It could be shown that this process is able to produce a synthesis gas of high quality with almost no tars, that is suitable for gas-motors with combined heat and power generation (CHP). The amount of hydrogen in this gas gives this technology for the future a hydrogen option to become a major player in the forthcoming hydrogen economy."