

Empire Hydrogen at the grand opening of ERRTH



Empire CEO Sven Tjelta addresses the large audience at BCIT's ERRTH grand opening

June 15, 2018: **BCIT**, the **British Columbia Institute of Technology** is BC's premier post-secondary training school for technology and trades. Their new **Emissions Reduction & Research Test Hub** is a program to support emissions reduction product development on heavy duty equipment and commercial transportation, through the design, testing and commercialization phases – a perfect fit for all of Empire Hydrogen's R&D efforts.

Sven discusses the technology with Dr. Shete, who has just purchased Empire's Class 6 system for his Sprinter van



Empire Executive VP Andrew Evans shows our system in actual use

Empire is a long time partner and friend of BCIT's School of Transportation. The meeting room at their Annacis Island campus has been officially renamed the **Empire Hydrogen Conference Centre**, immediately introducing our technology to every visitor. We are delighted that BCIT's graduating mechanics will all be introduced to Empire Hydrogen, an absolute necessity for the future installation and maintenance of our system.

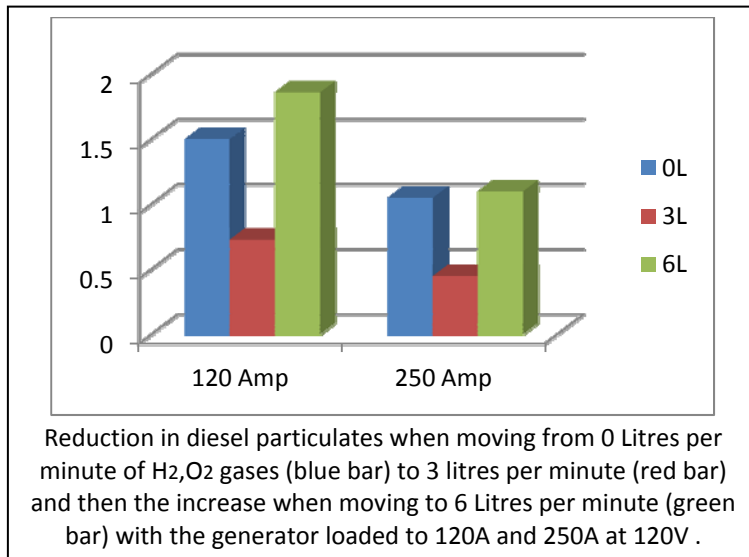
The grand opening of ERRTH was attended by fifty representatives from trucking, marine and heavy equipment companies along with government agencies who actively support new emissions reductions initiatives.

Investors interested in more information and our current activities should contact Sven Tjelta or Andrew Evans directly at 778.426.0911.

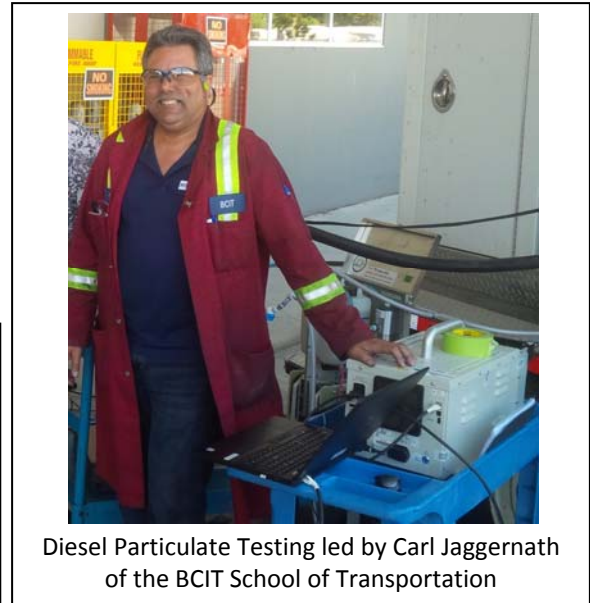
Empire Hydrogen Gets Preliminary Emission Test Results

July 27, 2018: Sidney, BC: Empire Hydrogen has completed an extensive round of emissions testing at the British Columbia Institute of Technology's School of Transportation on Annacis Island.

The BCIT testing, performed last week, concentrated on reduced harmful emissions from the installation of Empire's Fuel Enhancement System.



Test results showed an average 56% reduction in diesel particulates with the generator operated at normal load of 15kW and 30kW output and the Empire standard 3 litres per minute of H₂,O₂ accelerant gases injected directly into the generator air intake. Increasing the gas flow to 6 litres per minute eliminated the benefits, indicating the fine tuning required and a key reason why Empire has been able to develop a system where so many others have failed. Also notable by all involved was the significantly reduced diesel smell coming from the exhaust pipe.



BCIT has recently purchased some of the most sophisticated emissions measurement equipment available anywhere. Measurements were performed with the TSI Nanoparticle Emissions Tester Model 3795 on a 1998 E&EC 15L generator, very popular with the Vancouver movie making industry.

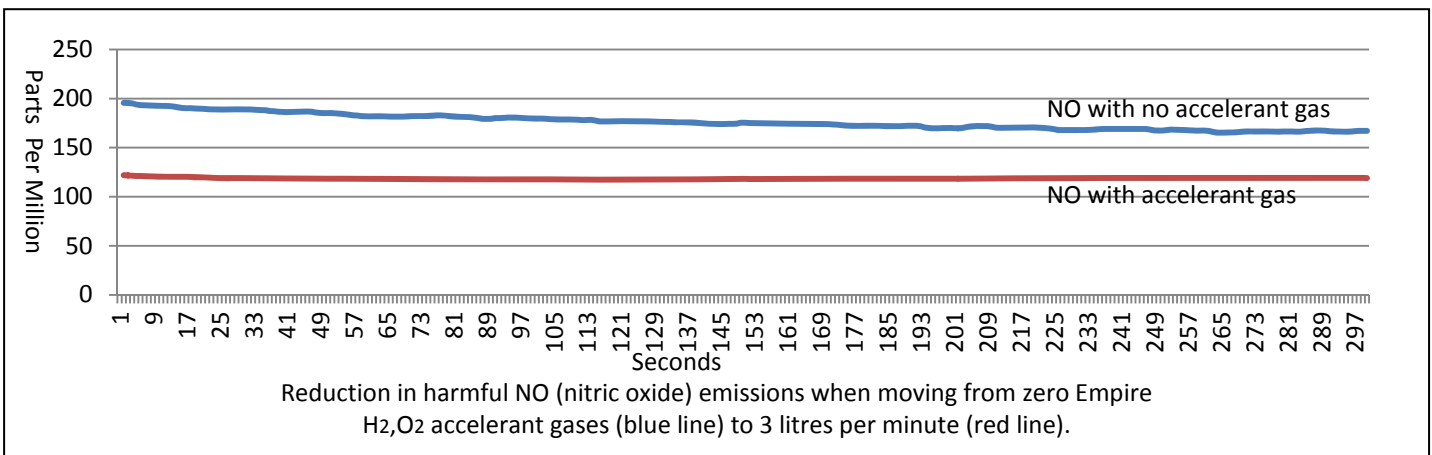
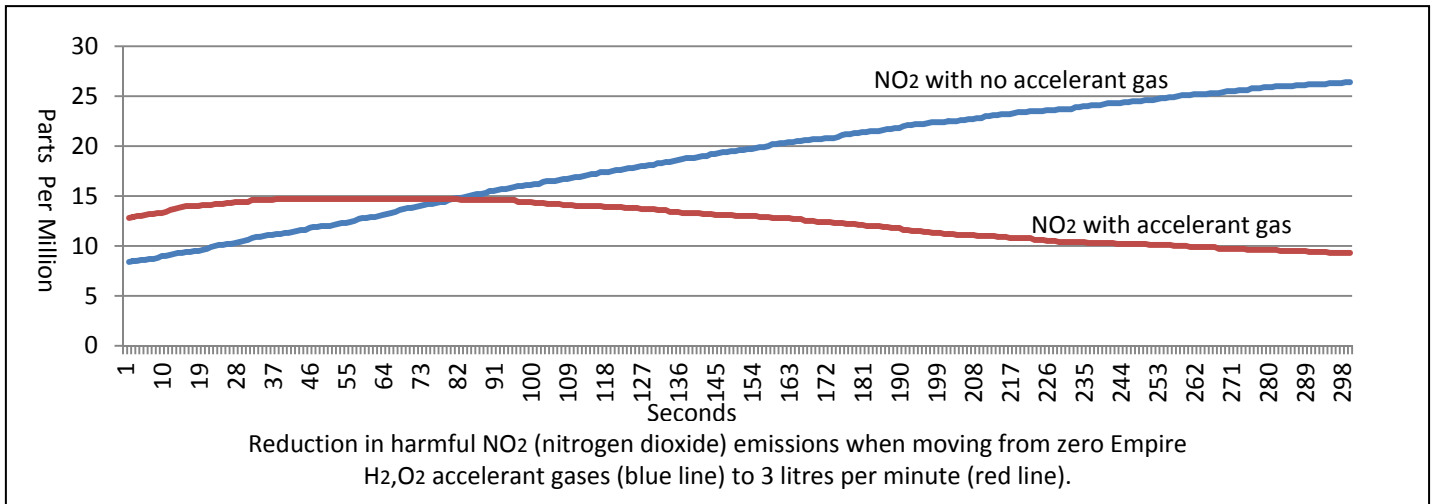


Investors interested in more information and our current activities should contact Sven Tjelta or Andrew Evans directly at 778-426-0911. We will be releasing further test results as they come available.



Empire Hydrogen Gets Preliminary Emission Test Results Part 2

August 13, 2018: Sidney, BC: Empire Hydrogen has completed an extensive round of emissions testing at the British Columbia Institute of Technology’s School of Transportation on Annacis Island. In this second release we are pleased to show the reduction in noxious and smog causing NO₂ and NO emissions resulting from Empire’s Fuel Enhancement System.



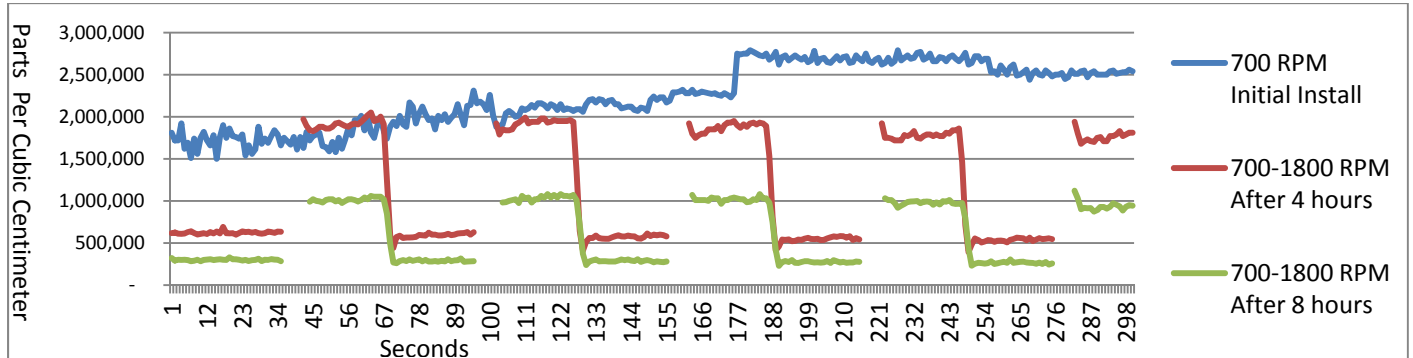
The emissions results came in as expected. NO₂ emissions normally increase as engine temperature rises (blue line in the upper graph.) The addition of Empire’s accelerant gases, including a small amount of water vapor to act as a heat sink, reduces the burn temperature of the diesel fuel, resulting in a reduction in these NO_x harmful emissions. This is exactly in line with a scholarly article published by the Korean Gas Corporation with Chonbuk National University. (Article available on request).

Investors interested in more information and our current activities should contact Sven Tjelta or Andrew Evans directly at 778-426-0911. We will be releasing further test results as they come available.

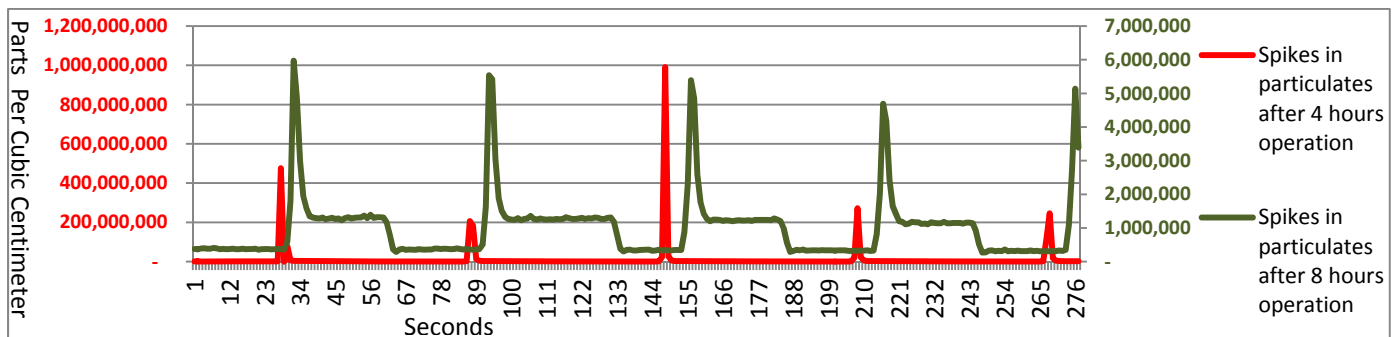


Empire Hydrogen Gets Preliminary Emission Test Results Part 3

August 22, 2018: Sidney, BC: Empire Hydrogen has completed extensive emissions testing at the BCIT School of Transportation. In this third release we are pleased to show the significant reduction in diesel particulates after 4 hours and 8 hours of operating with Empire Hydrogen’s H₂,O₂ accelerant gas.



The graph above covers 5 minute runs of the 15L generator on July 18th and 19th. The **blue line** indicates diesel particulate emissions (measured in parts per cubic centimeter) when Empire’s Fuel Enhancement System is first installed on the generator running at 700 RPM. The **red line** shows emissions after 4 hours, with the lower red lines at 700 RPM and the upper red lines at 1800 RPM. The **green line** is emissions after 8 hours, again with the lower green lines at 700 RPM and the upper green lines at 1800 RPM. The green line shows an average **59% reduction** in particulates after 8 hours of Empire’s accelerant gas flow.



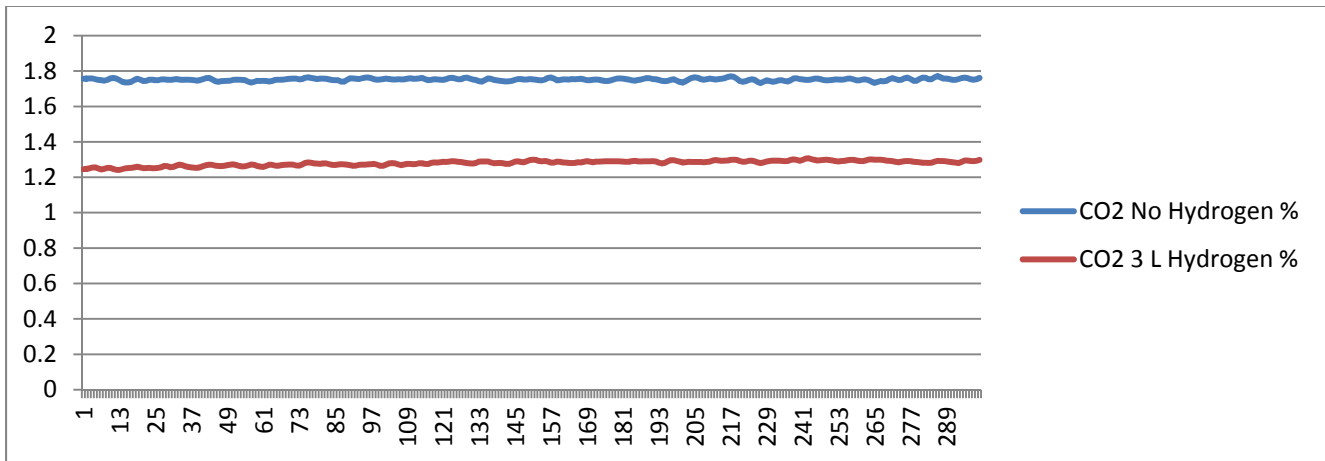
The graph above shows the spikes in particulate matter (large bursts of black smoke) at the moment of accelerating from 700 RPM to 1800 RPM (measured in parts per cubic centimeter). These spikes coincide with the gaps in the upper graph. The **red line** shows spikes in emissions after 4 hours of operation. The **green line** shows spikes in emissions after 8 hours of operation. Comparing the **Left Side** and **Right Side** scales, we see that the 8 hour spikes are hundreds of times better than the 4 hours spikes. This confirms previous research that it takes one or two day of operation for an engine to see the full benefits of Empire Hydrogen’s Fuel Enhancement System as it removes built up carbon in the engine.

Investors interested in more information and our current activities should contact Sven Tjelta or Andrew Evans directly at 778-426-0911.



Empire Hydrogen Gets Preliminary Emission Test Results Part 4

August 21, 2018: Sidney, BC: Empire Hydrogen has completed extensive emissions testing at the BCIT School of Transportation. In this fourth release we are pleased to show the significant reduction in Carbon Dioxide resulting from Empire’s Fuel Enhancement System.



The above graph above shows 5 minute runs of a 1998 E&EC 15L generator. The blue line carbon dioxide emissions when under normal operation with the generator running at 700 RPM. The red line indicates emissions after installation of Empire Hydrogen’s Fuel Enhancement System.

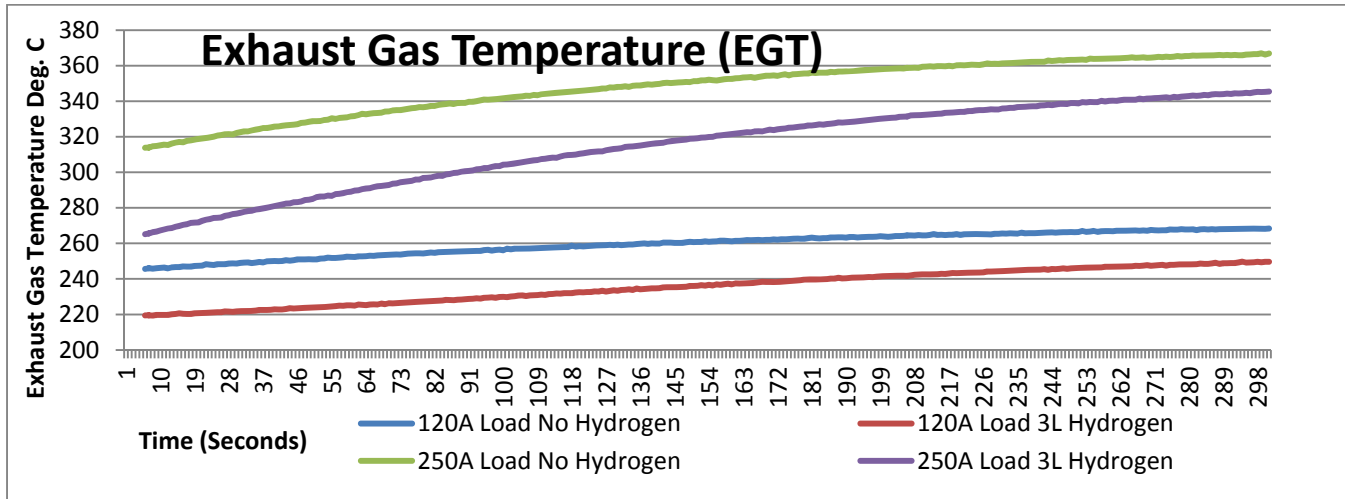
Approximately 22.38 pounds of CO2 are produced for each gallon of fuel burned in a typical diesel engine. Test results show a 27% (or 6 lbs) decrease in CO2 from Empire Hydrogen’s Fuel Enhancement System.

Please contact Andrew Evans at 250-516-0244 for more information on Empire Hydrogen Energy Systems and our Fuel Enhancement System.



Empire Hydrogen Gets Preliminary Emission Test Results Part 5

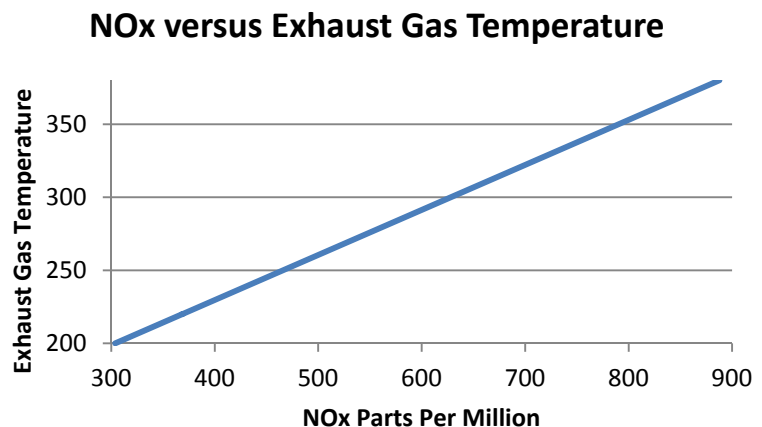
September 11, 2018: Sidney, BC: Empire Hydrogen has completed extensive emissions testing at the BCIT School of Transportation. In this fifth release, we are pleased to show the reduction in Exhaust Gas Temperature (and subsequent reduction in NOx) resulting from our Fuel Enhancement System.



The upper pair of lines show a five minute run of the generator running at 250A output; **Purple** with 3 litres per minute of Empire’s H₂,O₂ accelerant gas and **Green** with no gas. The lower pair show the generator running at 120A output; **Red** using 3L per minute of H₂,O₂ accelerant gas and **Blue** with no gas. Empire’s system is shown to reduce Exhaust Gas Temperature by about 10% in these cases.

Scholarly articles have proven that the production of Nitrogen Oxides (NOx) has a steep and linear correlation with exhaust gas temperature, as shown on the graph at right.

Testing performed at BCIT shows the clear correlation between a reduction in exhaust gas temperature from Empire Hydrogen’s Fuel Enhancement System and a subsequent reduction in smog causing NOx emissions.



For more information, please contact Andrew Evans or Sven Tjelta directly at 778-426-0911