

Incineration of Methane Emissions



Research and Development

Incineration of Methane Emissions

TransCanada has twice successfully tested a methane incinerator further increasing our ability to minimize the greenhouse gas (GHG) impacts of blowdowns. A blowdown is when methane is emptied from pipelines for construction and maintenance. Using a portable incinerator allows TransCanada to burn off residual methane left in pipelines after the use of air-powered expellers. Combustion converts methane to carbon dioxide, reducing its GHG impact by roughly 80 per cent. Methane is 21 times more potent than carbon dioxide over a 100 year time period in the atmosphere. Approximately 24 per cent of TransCanada's methane emissions are from blowdowns. Combusting methane reduces TransCanada's greenhouse gas emissions.



Caron Compressor Station

November, 2002



In the test Compressor Station 13, near Moose Jaw, Saskatchewan, portable transfer compressors were used to pulldown natural gas in the pipeline. In normal circumstances, the remaining gas would have been released into the atmosphere. In this case an incinerator was used to combust the remaining gas.

Herbert Compressor Station

May, 2003



The second incineration trial took place at Herbert Compressor Station, near Swift Current, Saskatchewan. Maintenance was required to install a new pig receiver at a mainline pipe section. Incineration of residual methane gas was carried out after the completion of transfer compression.

In both pilot tests Questor technology's portable incinerator was used. In each case approximately 75 per cent of the remaining gas was incinerated. Questor incinerators use a vortex combustion system to achieve 99 per cent combustion efficiency.

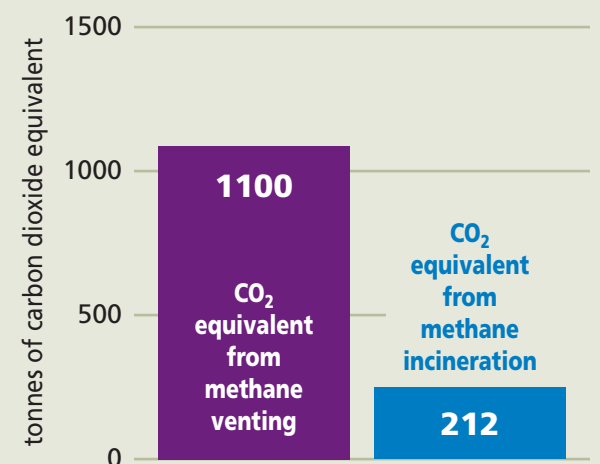
Each Incineration:

- Reduced emissions by approximately 1100 tonnes of carbon dioxide equivalent
- Produced approximately 212 tonnes of carbon dioxide emissions from combustion
- Incinerated approximately 2.93 million cubic feet of gas
- Approximately 3.11 million cubic feet of gas remained in the lines after transfer compression

Methane Incineration for both tests was equivalent to:



GHG Emission Comparison with and without Incineration after Transfer Compression



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