

Flare / HF Emissions

2016-2019

- Flare Emissions from Unconventional Oil and Gas Extraction and Processing: An NSERC Strategic Network for Cleaner Fossil Fuels

2016

- ABFlare Tool Update
- Revised emission factors for level controllers
- Vehicle-based fugitive emission detection and attribution within Alberta Energy Developments.

2015

- Potential Release into the Atmosphere of Additives used in the Hydraulic Fracturing Process
- Investigation of Potential Emission Trade-offs among Flare Efficiency, NO_x, and Particulate Matter Emissions
- Flaring Cost-Benefit Analysis
- Impacts of Turbulent Wind on Flare Performance

2013

- Efficiency and Emissions of Flares Burning Non-Hydrocarbon Aerosols in the Flare Stream
- Investigation of the characteristics of ultrafine particles for improved PM emission

factor reporting for flares

2012

- Phase II Non-Routine Flaring Modeling Tool Development
- Emissions from Flares with Non-hydrocarbon Liquids in the Flare Stream
- Evaluation of Emissions in the Upstream Oil and Natural Gas Industry
- Evaluation of Air Emissions Associated with Hydraulic Fracturing
- Field Measurement of Black Carbon Emissions from Flares
- Evaluating Trace Emissions of Non-Criteria Air Contaminants in the Upstream Oil and Gas Industry

2011

- Practical Defensible PM 2.5 Emission Factors for Flares

2010

- Improved Flare Source Parameters for CALPUFF and AERMOD Dispersion Models
- Improved Emissions Factors for Particulate Matter (PM) from Flares

2008

- Continued Development of Numerical Simulation of

a Sour Gas Flare

2007

- Gaseous Fuel Mixture Effects on Total Soot Yield from Flares
- GHG Emissions and Reductions from Solution Gas Flares in Alberta

2006

- Quantification of Soot Emissions from Flares – Phase 2
- Numerical Simulation of a Sour Gas Flare

2005

- Field Compatible Measurement of Flare Efficiency and Emissions
- Resolving Air Flow over Elevated Terrain to Improve Dispersion Modelling for Sour Gas Flares
- Effect of Sour Fuel Composition on Flare Combustion Efficiency

2004

- Flare Performance Research Initiative

2003

- New Flare Burner Designs
- Well Test Flare Plume Monitoring Phase II
- Well Test Flare Plume Monitoring
- Combustion Enhancement And Emission Reduction

From Flare Stacks

- Sour Gas Exposure (Year 2 Funding)

2002

- Flaring Performance

2001

- Combustion Enhancement and Emission Reduction
from Flare Stacks