

UTC Project Information Status May 20 2014.	
Project Title	Impact of Cold Climates on Vehicle Emissions: Cold Start Air Toxics Pulse
University	Washington State University (WSU)
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Funding Source(s) and Amounts Provided (by each agency or organization)	CESTiCC Tier I UTC – UAF: 101409 USDOT: \$60,000 Match WSU: \$30,000
Total Project Cost	90,000
Agency ID or Contract Number	101409
Start and End Dates	May 16 2014- Dec. 31 2015
Brief Description of Research Project	Impact of Cold Climates on Vehicle Emissions: The Cold Start Air Toxics Pulse. Vehicle emissions models, such as the US EPA’s Motor Vehicle Emissions Simulator (MOVES) suggest that in cold climates, the majority of pollutant mass emitted by vehicles occurs during engine cold starts and idling and not when the vehicle is moving along the road. In winter, cold starts in combination with meteorological conditions that trap vehicle emissions under low lying temperature inversions lead to significantly elevated pollutant concentrations. People living in colder climates are potentially exposed to significantly higher concentrations of air toxics than in warmer climates because of enhanced cold start and idling emissions and lower pollution dispersion rates. However, vehicle emissions data for cold climates is sparse and the accuracy of vehicle emissions model parameterizations for air toxics in cold climates is not known. Clarifying the importance of vehicle cold start and engine idling emissions in cold climates is the focus of this study. We will measure cold start emissions from gasoline and diesel engine vehicles during the winter months in our engine testing building.
Describe Implementation of Research Outcomes (or why not implemented)	To be completed later
Place Any Photos Here	

Impacts/Benefit of Implementation (actual, not anticipated)	To be completed later
Web Links <ul style="list-style-type: none">• Reports• Project website	http://cem.uaf.edu/cesticc/research/projects/impact-of-cold-climates-on-vehicle-emissions-cold-start-air-toxics-pulse.aspx