

## **EMISSIONS FROM IDLING TRUCKS FOR EXTENDED TIME PERIODS**

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The U.S. Environmental Protection Agency, Oak Ridge National Laboratory, and the U.S. Army Aberdeen Test Center (ATC) collaborated to characterize emissions from heavy trucks idling for extended periods. An environmental chamber at Aberdeen was used to vary the ambient temperature with extremes of 0°F and 90°F while the cab temperature was maintained constant. Emissions sampling and measurement equipment was transported to ATC. Gaseous emissions, including aldehydes plus particulate matter emissions, were recorded for five trucks at three ambient temperatures and two idle speeds. The five trucks covered a range of manufacturers and vintages. A truck auxiliary power unit (APU) was tested and compared to idling the engines for the same duty.

The results show interesting time and temperature dependence of the emissions and fuel use. The APU was found to provide major reductions in NO<sub>x</sub> and fuel consumption relative to idling the engine for cab heating/cooling.