



Make the switch to a Serio-US<sup>®</sup> LOCK—  
**Cut TONS of GHG**  
 by eliminating truck idling time



**Old Locking Method**

- Driver leaves truck idling to get out twice— once to unlock and again to relock the dumpster.
- Up to 6\*\* minutes of needless idling at each stop— 5.2 hours per dumpster per year!

GHG per 1,000 dumpsters	49.48 TONS
Needless GHG per CITY	<b>383 TONS</b>



**New Locking Method**  
*with Serio-US<sup>®</sup> Lock!*

- The Serio-US Automatic Lock opens automatically so the driver does not have to exit the truck.
- Completely eliminated needless idling.

GHG per 1,000 dumpsters	0 TONS
Needless GHG per CITY	0 TONS

**Total GHG that can be eliminated in every major U.S. city every year!**

**GHG Elimination**  
*when switching from a manual lock to a Serio-US<sup>®</sup> Lock*

<b>Carbon Dioxide (CO<sub>2</sub>)</b>	98,960 lbs reduction per 1000 dumpsters per year
	371 tons reduction per city per year (avg. 7500 padlocked dumpsters)*
<b>Nitrogen Oxides (NO<sub>x</sub>)</b>	1626.43 lbs reduction per 1000 dumpsters per year
	6.1 tons reduction per city per year (avg. 7500 padlocked dumpsters)*
<b>Carbon Monoxide (CO)</b>	1080.09 lbs reduction per 1000 dumpsters per year
	4.1 tons reduction per city per year (avg. 7500 padlocked dumpsters)*
<b>Particulate Matter (PM)</b>	38.7136 lbs reduction per 1000 dumpsters per year
	0.15 tons reduction per city per year (avg. 7500 padlocked dumpsters)*
<b>Hydrocarbons (HC)</b>	389.427 lbs reduction per 1000 dumpsters per year
	1.46 tons reduction per city per year (avg. 7500 padlocked dumpsters)*
<b>Volatile Organic Compounds (VOC)</b>	143.744 lbs reduction per 1000 dumpsters per year
	0.54 tons reduction per city per year (avg. 7500 padlocked dumpsters)*
<b>TOTAL GHG REDUCTION</b>	102,238 lbs reduction per 1000 dumpsters per year
	383 tons reduction per city per year (avg. 7500 padlocked dumpsters)*

Sources: Emission Facts (EPA 4/98); Draft Analysis of Heavy-Duty Diesel Vehicle Idle Emission Rates (EPA 110/03); Guidance for Quantifying and Using Long Duration Truck Idling Emission Reductions in State Implementation Plans and Transportation Conformity (EPA 1/04); Draft User's Guide to Part 5: A Program for Calculating Particle Emissions from Motor Vehicles (EPA); James A. Calcago, III, Evaluation of Heavy-Duty Diesel Vehicle Emissions During Cold-Start and Steady-State Idling Conditions and Reduction of Emissions from a Truck-Stop Electrification Program (Dissertation, December 2005).  
 \* Based on Serio-US Lock experience in each major city (100k+ population) there are 10 haulers with 50-1,000 padlocked dumpsters providing a range of 5,000-10,000 dumpsters, and an average of 7,500.  
 \*\* Based on informal polling by Serio-US Lock over 18 years.