
ENVIRONMENTAL Fact Sheet



29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

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Diesel Vehicles and Idling

Diesel vehicles typically idle to warm up, when loading or unloading, to maintain internal cab temperature, to run auxiliary equipment, and when picking up or discharging passengers. Vehicles likely to spend time idling include utility vehicles, school buses and transit buses, delivery vehicles, and short- and long-haul trucks.

Diesel vehicle idling deserves special attention because the exhaust is significantly different than exhaust from gasoline engines. Particulate matter (PM) and nitrogen dioxide (NO_x) emissions, for instance, are much higher in diesel vehicles. Because of this, diesel exhaust is more detrimental to human health and contributes disproportionately to air quality compared with gasoline engine exhaust. Diesel particulate matter, also known as soot, is made up of mostly carbon from unburned fuel as well as a range of organic and metals compounds. These components can be less than 1 micron in diameter, allowing them to enter deep into the lungs when inhaled, contributing to asthma, aggravating existing respiratory problems and worse. Diesel engine exhaust has been identified by the International Agency for Research on Cancer (IARC) as a Group 1, or known, human carcinogen (*IARC Monographs*, Volumes 1–111, updated February 18, 2015)

On-road diesel engines built since 2007 have been subject to new, stringent exhaust standards imposed by the EPA so today's diesel vehicles operate much cleaner. However, the durability of diesel engines gives vehicles a long life span, and many pre-2007 vehicles are still operating on New Hampshire roads. State registration data for 2017 indicates that nearly 60% of heavy-duty on-road diesel vehicles in the state were built prior to 2007. But even newer "clean" diesel trucks and buses waste fuel by idling and contribute air pollutants, albeit in smaller quantities.

One common misconception is that it is more cost effective to leave the engine running rather than to stop and restart it. The truth is idling places more wear and tear on the engine and reduces fuel economy. Another common belief is that diesel vehicles require extended warm-up periods. In fact, most manufacturers recommend just 2-3 minutes of warm-up time. These practices not only waste fuel and contribute to air pollution but also increase the diesel exhaust health risks to drivers.



Also, idle reduction technologies are available to provide services (such as heat, air conditioning and/or electricity) to vehicles and equipment that would otherwise require operation of the main drive or auxiliary engine(s) while the vehicle is temporarily parked or stationary. These technologies include auxiliary power units and generator sets, electrified parking spaces (truck stop electrification), shore connection systems and alternative maritime power, and automatic shutdown/start-up systems for locomotives.

Anti-Idling Regulations

Environmental impacts of motor vehicle emissions remain a concern both here in New Hampshire and regionally. Accordingly, all or portions of 28 states, including all six New England states, impose some type of restrictions on idling. Applicable vehicles, idle time limits and exceptions, vary from state to state and all include both gasoline- and diesel-powered on-road vehicles.

State	Idle time limit	Ambient temperature	Applicability
New Hampshire	No more than 5 consecutive minutes in any 60-minute period	>32°F	All motor vehicles
	No more than 15 consecutive minutes in any 60-minute period	-10°F - 32°F	
	No limit (so long as no nuisance is created)	< -10°F	
Connecticut	3 minutes	> 20°F	All on- and off-road motor vehicles
	No limit	< 20°F	
Maine	5 minutes in any 60 minute period	> 32°F	All on-road motor vehicles except passenger vehicles
	15 minutes in any 60 minute period	0 – 32 °F	
	No limit	> 0°F	
Massachusetts	5 minutes	None	All motor vehicles
Rhode Island	5 minutes in any 60 minute period	>32°F	All diesel engines including off-road
	15 minutes in any 60 minute period	0 – 32 °F	
	No limit	> 0°F	
Vermont	5 minutes in any 60 minute period	None	All on-road motor vehicles and construction vehicles

New Hampshire’s anti-idling directive can be found in the New Hampshire Department of Environmental Services’ (NHDES) rules at Env-A 1100. Certain exemptions to the idling limits exist such as for operation of emergency or law enforcement vehicles, to ensure the safety of the driver or passengers, for operation of auxiliary equipment, and when traffic conditions or mechanical difficulties preclude shutting down.

Because there is no similar law in the New Hampshire state statutes, this rule is only enforceable by NHDES. Communities are encouraged to adopt local anti-idling ordinances that will be enforceable by local police. Information about obtaining no-idling signs can be found on the NHDES website on the [Idle Reduction](#) page. Comprehensive information about idling, idle-reduction initiatives, technologies and events can be found online on the [U.S. Department of Energy Clean Cities Coalition Idlebox Toolkit](#). For more information about diesel idling in New Hampshire, visit the NHDES [Air Resources Division](#) webpage or call (603) 271-6453.