



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FT GREELY
P. O. BOX 31269
FORT GREELY ALASKA 99731-1269

IMFG-ZA

25 November 2013

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Installation Policy Memorandum #14-11, Vehicle Plug-in Policy for Cold Weather Operations

1. PURPOSE. To provide policy and guidance to Fort Greely team members and tenant organizations on the use of plug-in outlets (head bolt heaters) for cold weather vehicle starting.
2. APPLICABILITY. All civilian and military personnel assigned to or under the operational control of Fort Greely, Alaska.
3. RESPONSIBILITY.
 - a. The Garrison Commander (GC) is ultimately responsible for Fort Greely and the health and welfare of the employees and military families on the installation. This responsibility includes providing clean air to breathe and reducing utility expenditures where feasible.
 - b. Individuals are expected to be good stewards of the environment and protect the health and safety of their peers.
 - c. It is the responsibility of directors and tenant units located at Fort Greely to know this policy, ensure their personnel are briefed on it, and to enforce the policy.
4. PROCEDURES.
 - a. Vehicles on the installation should be plugged-in when temperatures fall below a positive 21 degrees Fahrenheit. Many of the installation's head bolt heaters are thermostatically controlled at the Garrison Power Plant to become active at 20° F. There are others, however, that have been modified to be active all year long for convenience to the housing and work areas. The use of these head bolts for plugging in vehicles at temperatures above 20° F can result in excessive wear and tear on your vehicle's battery and operating system.
 - b. Start-up is a period of maximum engine wear and fuel use, and minimum fuel efficiency for a cold engine. At cold temperatures, gas does not vaporize easily, so extra fuel is supplied to keep the car running. This extra fuel may blow by the rings into the crank case, diluting the oil used for lubrication of rings and bearings. This can lead to extra engine wear and tear.

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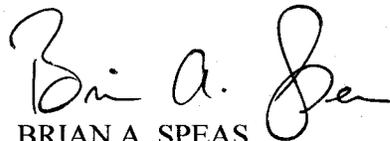
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c. Plugging-in allows the engine to warm faster. Studies have shown that plugging-in 2 hours prior to starting cuts carbon monoxide (CO) emissions from cold starts by 60%. Using your block heater also reduces emissions of other pollutants like hydrocarbons, fine particles and toxic air pollutants. On days with temperature inversions or little wind, pollution from vehicle cold starts and idling disperses very slowly. Some of the highest CO levels at Fort Greely occur in the housing area during morning hours where cars are started cold after parking outside overnight.

d. Excessive idling of vehicles during cold weather produces twice as many exhaust emissions as a vehicle in motion. While remote start devices are nice to have and convenient, they encourage you to start your car much too soon before you are ready to drive, causing unnecessary idling and a waste of fuel. Studies have shown that the best way to warm up a vehicle is to drive it. Modern vehicles equipped with computers and electronic fuel injection need no more than 30 seconds of idling on winter days before driving. The catalytic converter doesn't work well when it's cold and causes engine emissions to pass through the exhaust untreated. Driving your vehicle warms the catalytic converter more rapidly than idling and reduces the amount of unburned hydrocarbons in the air. When vehicles are left idling for extended periods of time between the administrative buildings and the barracks buildings, exhaust fumes find their way into the soldier's rooms and nearby offices.

e. Head bolt heater spaces are at a premium during the winter months at Fort Greely and those individuals who live on the installation and can walk to work, should. Another way to ensure that there are an adequate numbers of plug-ins available is to make sure that when you park you stay to the right or left of the center line of the head bolt heater post so two vehicles can use the one post. People who park at an angle negate the use of some of the available spaces. If you reside on Post, park outside, and are on extended trips out of the area without your vehicle, please do not leave them plugged in for the entire time you are gone. If you plug them in when you return they will warm up overnight and be ready for use the next morning. This frees up head bolt heaters for others to use and conserves energy. Energy conservation may also be practiced by the use of a programmable timer. These devices allow you to set the time you want your electricity to come on to your vehicle and three to four hours prior to your departure for work is sufficient in even the coldest of temperatures to warm your starting system.

5. Point of contact for this memorandum is the Logistics Readiness Center, 873-3240.



BRIAN A. SPEAS

LTC, SF

Commanding

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