Engine Disablement Procedures for the CARS Program

THIS PROCEDURE IS NOT TO BE USED BY THE VEHICLE OWNER

Perform the following procedure to disable the vehicle engine.

Since the vehicle will not be drivable after this procedure is performed, consider where the procedure will be performed and how the vehicle will be moved after the procedure is complete.

1. Obtain solution of 40% sodium silicate/60% water. (The Sodium Silicate (SiO_2/Na_2O) used in the solution must have a weight ratio of 3.0 or greater.)
2. Drain engine oil for environmentally appropriate disposal.
3. Install the oil drain plug.
4. Pour enough solution in the engine through the oil fill for the oil pump to circulate the solution throughout the engine. Start by adding 2 quarts of the solution, which should be sufficient in most cases.
   CAUTION: Wear goggles and gloves. Appropriate protective clothing should be worn to prevent silicate solution from coming into contact with the skin.
5. Replace the oil fill cap.
6. Start the engine.
7. Run engine at approximately 2000 rpm (for safety reasons do not operate at high rpm) until the engine stops. (Typically the engine will operate for 3 to 7 minutes. As the solution starts to affect engine operation, the operator will have to apply more throttle to keep the engine at 2000 rpm.)
8. Allow the engine to cool for at least 1 hour.
9. With the battery at full charge or with auxiliary power to provide the power of a fully charged battery, attempt to start the engine.
10. If the engine will not operate at idle, the procedure is complete.
11. If the engine will operate at idle, repeat steps 6 through 10 until the engine will no longer idle.
12. Attach a label to the engine that legibly states the following:

    This engine is from a vehicle that is part of the Car Allowance Rebate System (CARS). It has significant internal damage caused by operating the engine with a sodium silicate solution (liquid glass) instead of oil.