**To reduce NOx on a vehicle that fails an emissions test, perform these 10 steps in order:**

1. Check the timing, and make sure it's within specification.

2. Make sure the knock sensor and their circuits are working. A malfunc­tioning sensor can cause over-advanced timing.

3. Check the EGR system. Look for correct vacuum to the EGR valve and for proper valve operation.

4. If needed, clear any clogged EGR passages.

5. Make sure the octane rating of the fuel being used is high enough for the engine.

6. Check the coolant, and add some if needed.

7. Check the cooling system (thermostat, cooling fan, fan clutch, etc.) for proper operation. An overheated engine or high intake air tem­perature can cause excessive NOx.

8. Check for dirty or clogged fuel injectors, and clean or replace them as needed.

9. Check the 02 sensor reading(s) for an overly lean mixture, and cor­rect the mixture if needed.

10. If the previous steps don't reduce the NOx level, use a decarbonizer to remove carbon buildup in the combustion chambers.