Engine Emission Control

NOTICE: Do not remove any part of the engine emission control system. Operating the engine without the engine emission control system will reduce fuel economy and engine ventilation. This will weaken engine performance and shorten engine life.

The engine emission control system consists of the:

- positive crankcase ventilation (PCV) system.
- exhaust gas recirculation (EGR) system.

The EGR system returns a portion of the exhaust gas to the intake manifold to reduce the combustion temperature. This results in lower nitrous oxide formation.

The powertrain control module (PCM) controls the EGR vacuum regulator solenoid. The EGR vacuum regulator solenoid controls the vacuum to the EGR valve. When the EGR valve opens, exhaust gas flows to the intake manifold. The EGR transducer measures the flow through the EGR system module to exhaust manifold tube and sends a signal to the powertrain control module.

The PCV valve:

- controls the amount of ventilating air and blow-by gases going to the intake manifold.
- is integral to the LH valve cover on the 4.6L (3V) engine. If a new PCV valve must be installed, a new valve cover must be installed, refer to <u>Section 303-01B</u>

 303-01B Engine — 4.6L (3V)
 2006 Mustang

 IN-VEHICLE REPAIR
 Procedure revision date: 06/26/2005

 Valve Cover — LH

 Material

 Item
 Specification

 Motorcraft Metal Surface Prep
 —

 ZC-31
 Silicone Gasket Remover

 Silicone Gasket Remover
 —

 ZC-30
 Silicone Gasket and Sealant

 WSE-M4G323-A4
 TA-30

The EGR system module-to-exhaust manifold tube:

• connects the exhaust manifold to the EGR valve.

The EGR system module transducer:

- monitors the EGR system module flow rate through the EGR-to-exhaust manifold tube.
- sends an EGR system module flow rate signal to the PCM.

The EGR vacuum regulator solenoid uses input from the PCM to change the EGR system module operation.