

MEMORANDUM OF UNDERSTANDING

Developing an Understanding of In-use Emissions
from
Heavy-Duty Diesel Engines

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NORTHEAST STATES for COORDINATED AIR USE MANAGEMENT
CALIFORNIA AIR RESOURCES BOARD

The purpose of this Memorandum of Understanding (MOU) is to establish an agreement among the U. S. Environmental Protection Agency (EPA), the Northeast States for Coordinated Air Use Management (NESCAUM), and the California Air Resources Board (ARB) to cooperate in developing an improved understanding of in-use emissions from heavy-duty diesel engines. EPA has proposed new oxides of nitrogen (NO_x) standards for highway heavy-duty engines based on a Statement of Principles (SOP) developed in conjunction with the California ARB and engine manufacturers. EPA, ARB and some engine and equipment manufacturers have also signed a SOP concerning a proposal for new emission standards for nonroad diesel engines. This MOU is intended to help maximize the emission reduction potential of any new standards.

Heavy-duty engines represent a major source of NO_x and particulate matter (PM) emissions that contribute to elevated levels of ozone and fine particles. Concerns have arisen that the actual heavy-duty engine contribution to NO_x and PM inventories may be greater than current estimates would suggest due to unquantified in-use emissions. Manufacturers of these engines have made technological strides in recent years in reducing these emissions. Further NO_x reductions are expected to result from proposed new standards.

In order to ensure the full benefit of any new controls in-use, a better understanding of in-use emissions is essential. EPA, NESCAUM and ARB agree that there is a substantial lack of available data on how advanced technology engines respond to in-use driving and operating conditions. Under this MOU, the signatories will work together to develop in-use test methods and to assess in-use emissions from heavy-duty engines. This joint effort will involve:

- ?? Developing a compendium of existing and planned activities among the signatories which would increase the overall understanding of in-use emissions from heavy-

duty engines.

- ?? Based on the information obtained above, developing a collaborative plan for accomplishing the goals of this agreement.
- ?? The sharing of technological developments and technical expertise.
- ?? Identifying ways for cost-sharing in areas such as testing programs and test method development.
- ?? Identifying opportunities for providing cooperative technical training on issues such as heavy-duty in-use testing in an effort to ensure capacity for addressing in-use issues.
- ?? Identifying opportunities for additional parties to join this effort.

EPA, NESCAUM and ARB commitment to this collaboration is hereby established by the signing of this MOU.