School of Mechanical Engineering

Course Code: BAUT4006 Course Name: Pollution control and Lubrication Engineering

Introduction to Pollution control and Lubrication Engineering

Air Pollution: Policies & Implementation

Motor Vehicle Air Pollution Control Act of 1965

- 3 Major Revisions
 - 1970
 - 1977 and
 - 1990 Amendments

3 Different Approaches

A. National technology mandates on auto manufacturers(Emission Control Systems) and oil companies (Market Cleaner Funds)

B. Mandates on state governments to curb motorist's auto use & maintain emission control systems in working order

C. Requirements that transport infrastructure investments be consistent with NAAQS.

Policies have achieved important successes

Between 1970 & 1995 VMT doubled, but all auto emissions declined on a vehicle mile basis

Ambient air quality has improved in SMSAs

Still Air Quality still a challenge

EPA has new standards for ozone and particulate matt

Also GHG issue

An assessment of the effectiveness of these policies

Have all three elements of US strategy contributed to effectiveness

Strategy: 1. Successful

2. Changing personal behavior?

3. Useful

Impacts of Air Pollutants

Ozone - lung tissues & functions

PM - respiratory problems

CO - O₂ delivery to blood

Lead - affects major organs, especially in children

Nox - lungs & respiratory functions



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Thank you