

Discussion of Colucci and Larkin papers

In response to the presentations by Colucci and Larkin on the impact of regulations on users, one questioner asked about the millions of older vehicles built before emission controls but still in operation. He wondered whether these vehicles were not making it much more difficult to comply with present and proposed air quality standards. Was industry making any moves to remove such vehicles from the road? Colucci agreed that replacing these older cars with properly engineered cars would go a long way in solving compliance problems. He mentioned a program by UNOCAL in California to purchase and junk 8200 vehicles built before 1975 without catalytic converters. Unfortunately the owners of old vehicles are usually the poorest and unable to upgrade their cars with more modern ones.

Another questioner expressed concern over increased aldehyde emissions noted with fuels containing MTBE. Colucci replied that Auto/Oil study members considered MTBE-containing fuels to be an overall improvement because reductions in carbon monoxide and nitrogen oxides more than balanced the aldehyde increases. As another example he cited an unexpected increase in hot soak emissions and it then becomes necessary to consider all factors to balance bad versus good effects.

Because Colucci had suggested that refiners aim for a Reactivity Factor of 0.5, another questioner asked about the fuel composition needed to achieve this level. Although Colucci felt that the answer would best come from refiners, the data in his paper showed that selectively removing the worst aromatics rather than limiting total aromatics would be desirable in achieving a high Reactivity Factor. Olefins as well as selected aromatics should be removed from reformulated gasolines.

Larkin was asked whether the oil industry had responded to the challenge of improved diesel fuel to the same degree that it apparently had to the need for reformulated gasoline. According to Larkin there had been excellent cooperation in industry planning to achieve the 1993 goal of low sulfur fuel. However, the diesel engine industry itself has not reached agreement on the best strategy for meeting the year 2000 targets.

One questioner wondered how General Motors could accept alcohol-containing fuels which were the justification for a 1 psi Reid vapor pressure waiver to existing regulations. Colucci agreed that the waiver should not have been granted because it amounted to a license to increase emissions.