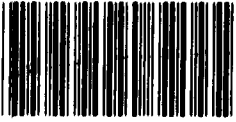


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UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548



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Statement of  
F. Kevin Boland  
Acting Deputy Director, Energy and Minerals Division  
Before the  
Subcommittee on Fossil and Synthetic Fuels  
of the  
House Committee on Energy and Commerce

Mr. Chairman and Members of the Subcommittee: I appreciate the opportunity to discuss tentative observations resulting from work we have ongoing at the Subcommittee's request on institutional and infrastructural impediments to the emergence of a methanol transportation fuel market.

We have done a substantial amount of work in the alcohol fuels area over the past 3 years, and have examined methanol in considerable detail. Based on our work we are highly optimistic about methanol's potential as an automotive fuel.

Of course, we all recognize that economic and other incentives must exist for the public to adopt methanol for widespread use. While methanol has vast potential and many advantages relative to other options, our optimism about methanol as a fuel must be tempered by several realities. Beyond the current abundance of gasoline supplies, the major obstacle impeding achievement of methanol's potential is the problem of simultaneously developing methanol production, a distribution network, and suitable vehicles. That problem will not be easily overcome.

Prospective methanol producers cannot invest the enormous sums of capital necessary to build methanol plants without the

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assurance of a market of eager consumers with methanol cars. Auto-makers, on the other hand, will not turn out methanol cars without assurance of the widespread availability of methanol to make the cars run.

In this context, let me briefly address (1) certain regulations and standards which may affect the commercialization of methanol; (2) the potential for vehicle fleet use as a market catalyst; and (3) the issue of possible future sources of methanol supply if a major market develops in the transportation sector.

#### REGULATIONS AND STANDARDS

Provisions of the Clean Air Act require that anyone proposing to market any fuel or fuel additive substantially different from those in use in 1975 obtain a waiver from the Environmental Protection Agency. Methanol and methanol blends have certain unique properties and produce emissions including aldehyde and unburned methanol not covered by the EPA regulations. EPA has granted a series of waivers including one for a blend of 12 percent methanol in gasoline. It has also granted exemptions to modify cars to operate on methanol. EPA officials state that these waivers and exemptions are easily available and that the process is not unduly time consuming or costly. Although, EPA's current policy appears to be a significant step for methanol marketing, opinions can legitimately differ on the need for and timing of additional regulations.

Corporate Average Fuel Economy standards and the vehicle labeling program also have a potential impact upon the development of methanol use. Perhaps the time has come to develop fuel

efficiency standards which would put methanol on a par with gasoline. While methanol has only about one-half the energy content of gasoline, methanol-optimized engines should yield significantly more than one-half as many miles per gallon. Depending on the relative cost, this efficiency gain could result in lower fuel costs per mile. In order to compare it to gasoline an equivalency factor could be developed.

In order for methanol to come into widespread automobile use, standards dealing with quality, grade, and handling will have to be developed. These include grade standards similar to those applicable to gasoline which enable bulk gasoline to be exchanged readily between suppliers, and safety standards to reflect the particular characteristics of methanol. This area seems to be one where the industry and industry associations could play a useful role.

#### FLEET USE OF METHANOL

Assuming that there is economic or other motivation for the use of methanol, the most likely potential initial users of methanol are captive fleets--those fleets with restricted uses such as the fleets belonging to utilities. Captive fleets account for about 12 million vehicles. However, this potential market will be limited considerably by the range of methanol vehicles and by their reduced resale value as long as the fuel is not widely available to the used car buying public. The combination of these factors may restrict the potential fleet market to a likely maximum of 600,000 vehicles. The entire Federal fleet, facing the same restrictions, potentially could provide a maximum market for 387,000 methanol vehicles.

Fleets in themselves would do little to provide the widespread fuel distribution infrastructure needed to make ownership of methanol vehicles practical for the general public. A methanol fuel market will take longer to develop if measures beyond fleet procurement are not taken to make the fuel publicly available.

#### METHANOL SUPPLY AND PRODUCTION

Although, as an industrial chemical, methanol is currently in oversupply, demand will be increased many fold if a market develops for methanol in the transportation sector.

Methanol offers a synthetic fuel option with highly promising production potential that the Nation could begin implementing with existing technology. Methanol is currently produced in the United States primarily from natural gas, but many foresee the use of domestic coal as feedstock for increased production. In fact, this perception is one of the principal arguments in favor of the development of methanol as a means of reducing U.S. dependence on imported energy. Ironically, imports of methanol are increasing, partially due to lower prices of foreign produced methanol. Without a commensurate development of a domestic methanol fuel industry, the development of a methanol fuel market could result in further dependence on foreign methanol.

#### CONCLUDING REMARKS

This concludes my prepared statement. I would be pleased to answer any questions at this time.