CONGRESSIONAL BUDGET OFFICE
PRIVATE-SECTOR MANDATES STATEMENT

December 21, 2001

S. 950
Federal Reformulated Fuels Act of 2001

As ordered reported by the Senate Committee on Environment and Public Works on September 25, 2001

SUMMARY

S. 950 contains several private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). The bill would impose mandates on domestic refiners and importers of certain motor fuels, and on producers of the fuel additive methyl tertiary butyl ether (MTBE). The most costly mandate would ban the use of MTBE in motor vehicle fuel by the year 2006. CBO estimates that the direct costs of such a ban would amount to about $950 million a year starting in fiscal year 2006, declining to about $600 million a year by 2008. Consequently, the aggregate direct costs of all the mandates in the bill would be well in excess of the annual threshold established by UMRA ($113 million in 2001, adjusted annually for inflation).

S. 950 also would authorize an annual appropriation of $250 million to the Environmental Protection Agency (EPA) over the 2002-2004 period for grants to assist manufacturers of MTBE to convert facilities to produce fuel additives that would substitute for MTBE.

PRIVATE-SECTOR MANDATES CONTAINED IN BILL

S. 950 would impose private-sector mandates on domestic refiners and importers of certain motor fuels, and on producers of the fuel additive methyl tertiary butyl ether. Specifically, the bill would impose mandates by:

- Banning the use of methyl tertiary butyl ether in motor vehicle fuel;
- Eliminating the waiver that allows gasoline blended with ethanol to have higher evaporative properties (as measured by the Reid vapor pressure) than gasoline blended with other fuel additives; and

- Requiring the refining industry to comply with more frequent environmental and public health testing of fuel additives prior to registration of those substances.

ESTIMATED DIRECT COST TO THE PRIVATE SECTOR

CBO estimates that the aggregate direct costs of the private-sector mandates in S. 950 would be well in excess of the annual threshold established by UMRA ($113 million in 2001, adjusted annually for inflation) starting in 2006.

Ban the Use of MTBE in Gasoline

Under the Clean Air Act (CAA) Amendments of 1990, areas with poor air quality are required to add chemicals called "oxygenates" to gasoline as a means of reducing certain air pollution emissions. The CAA has two programs that require the use of oxygenates. One program requires oxygenated fuel only during winter months. The more significant of the two programs is the reformulated gasoline (RFG) program. Under that program, areas with severe ozone pollution must use reformulated gasoline year round. Areas with less severe ozone pollution may opt into the program as well, and many have. Refiners in participating states are required to add oxygenates to that gasoline at levels designed to improve combustion and thereby, reduce pollution from motor fuel emissions. Currently, about 1.3 million barrels of reformulated gasoline are sold each day. One of the most commonly used oxygenates is methyl tertiary butyl ether. In recent years concerns have been raised about the adverse effects on drinking water supplies of MTBE that leaks from underground tanks.

S. 950 would ban the use of methyl tertiary butyl ether in gasoline within four years of the bill's enactment. Nearly 0.3 million barrels of MTBE are blended into gasoline each day in this country, with about one third of that amount supplied to refiners by merchant producers and the rest produced by the refiners themselves or imported. Under the bill, domestic petroleum refiners would no longer be able to blend MTBE into gasoline and would therefore be required to either produce or buy other, more costly fuel additives (such as Alkylates or IsoOctane) to blend into reformulated gasoline. Merchant producers would have to convert their operations and begin producing alternative fuel additives, or would sell MTBE abroad. Significant capital investment by domestic refiners and merchant producers, including conversion of MTBE plants, would be required in order to produce the Alkylates or IsoOctane. Importers would have to acquire gasoline produced without MTBE and alternative fuel additives.

Industry studies indicate that refiners and importers may initially have to pay an additional 2.5 cents to three cents per gallon to supply gasoline without MTBE. The cost to merchant producers of MTBE that decide to convert to the production of alternative fuel additives could be about 15 cents per gallon of MTBE converted. For both parties, the unit costs of compliance will diminish after capital investments are made. CBO estimates the total cost of the MTBE ban would amount to about $950 million annually starting in 2006 and decline after a few years to about $600 million annually.

At this time, ten states, including California and New York, have acted to completely phase-out the use of MTBE in gasoline. CBO's estimate of the cost to refiners has been adjusted for the fact that those states, which account for more than 40 percent of reformulated gasoline sales, will already be in compliance with the ban by the time the bill's provisions would go into effect.

Eliminate the Ethanol Waiver

Under the RFG program gasoline sold in the summer months must meet a Reid vapor pressure (RVP) standard that is stricter than that for other gasoline. RVP, measured in pounds per square (psi), indicates how quickly a substance evaporates. Gasoline with a high RVP evaporates more readily at a given temperature, allowing components of gasoline that contribute to smog formation to escape into the atmosphere.

S. 950 would eliminate the statutory waiver that allows conventional gasoline blended with ethanol to have a higher Reid vapor pressure than other gasoline. Currently, conventional gasoline blended with ethanol is allowed to have an RVP of 10 psi, making it more evaporative than other fuels. Under the bill, ethanol-blended fuels would have to achieve an RVP of 9 psi. To accommodate the change, refiners who blend ethanol would reduce their use of other highly evaporative components in gasoline, such as butane. It is likely that those refiners (located mainly in the Midwest) would continue their use of ethanol, since that additive receives federal and state subsidies. According to the Energy Information Administration, it would cost about 0.4 cents per gallon of gasoline to eliminate enough butane to lower the RVP of ethanol-blended gasoline to 9 pounds per square inch. CBO therefore expects that the cost of replacing butane and other evaporative blendstocks in the 0.4 million barrels of ethanol-blended gasolines that are sold each day would be about $65 million annually.

Require More Frequent Environmental and Public Health Testing

The bill would require manufacturers of fuel additives to test their products regularly for any environmental and public health effects of the fuel or additive, as part of the registration process with the EPA. Under current law, such testing occurs at the discretion of the EPA

Administrator. Based on information provided by the EPA on the most recent round of testing, CBO expects the cost of regular testing to be between $10 million and $20 million every five years, which is the period of time over which the EPA expects the testing to take place.

APPROPRIATION OR OTHER FEDERAL FINANCIAL ASSISTANCE PROVIDED IN THE BILL RELATED TO PRIVATE-SECTOR MANDATES

S. 950 would authorize the appropriation of $750 million to the Environmental Protection Agency over the 2002-2004 period for grants to assist domestic manufacturers of MTBE to convert facilities to produce substitute fuel additives instead of MTBE.

ESTIMATE PREPARED BY:

Lauren Marks and Richard Farmer

ESTIMATE APPROVED BY:

David Moore
Deputy Assistant Director for
Microeconomics and Financial Studies Division