

# SENATE STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

BILL: CS/SB 372

SPONSOR: Natural Resources Committee and Senator Saunders

SUBJECT: Environmental Protection/MTBE Gasoline Additive

DATE: March 14, 2001      REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Branning	Voigt	NR	Favorable/CS
2.	_____	_____	AGG	_____
3.	_____	_____	AP	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

**I. Summary:**

This bill requires the Department of Environmental Protection, in consultation with representatives of the petroleum industry, to study the use of methyl tertiary butyl ether or MTBE as a gasoline additive. It requires the department to study alternative additives that may be used in place of MTBE. The department is required to report its findings and recommendations to the Legislature by January 15, 2002.

**II. Present Situation:**

Methyl tertiary butyl ether, or MTBE, is a synthetic chemical compound with no natural sources that is manufactured by the chemical reaction of methanol and isobutylene. MTBE is almost exclusively used as a fuel additive in motor gasoline. It is one of a group of chemicals commonly known as "oxygenates" because they raise the oxygen content of gasoline. At room temperature, MTBE is a volatile, flammable and colorless liquid that is highly soluble in water.

MTBE has been used in U.S. gasoline at low levels since 1979 to replace lead as an octane enhancer to prevent the engine from "knocking." Since 1992, MTBE has been used at higher concentrations in some gasoline to fulfill the oxygenate requirements set by Congress in the 1990 Clean Air Act Amendments. The use of MTBE as a mechanism for air pollution control was initiated by the Environmental Protection Agency in 1992 by the creation of the oxygenated fuel (Oxyfuel) program and was enhanced in 1995 by the creation of the federal reformulated gasoline (RFG) program. The Clean Air Act Amendments of 1990 (CAA) required the use of oxygenated gasoline in areas with unhealthy levels of air pollution. The CAA does not specifically require MTBE. Refiners may choose to use other oxygenates, such as ethanol.

MTBE is currently being used in oxygenated gasoline (Oxyfuel program) to meet the CAA provisions which require at least a 2.7 percent oxygen content (by weight) in gasoline sold in areas where carbon monoxide exceeds the health standard in winter months. The use of MTBE in gasoline has helped to achieve significant reductions in air pollution in those areas where it is required. It is also widely used year round in RFG (at least 2 percent oxygen content) to provide cleaner burning fuel to reduce ozone and toxic emissions, typically in more polluted metropolitan areas.

Gasoline with added MTBE is presently sold in Florida because certain refiners have determined MTBE to be the most cost effective octane booster to use. Since it is used as an octane booster in Florida, rather than as pollution control, it is believed the majority of gasoline fuel sold in Florida has maximum MTBE concentrations of only 3 to 8 percent; however, it is possible that fuel mixtures of higher concentration may sometimes be sold here. Actual concentrations cannot be readily verified.

Because MTBE is highly water soluble, there is a growing concern of MTBE reaching Florida's groundwater and contaminating the drinking water supply for 92 percent of Florida's residents. Contamination of drinking water sources can occur from leaking underground and above ground fuel storage tanks, pipelines, refueling spills, automobile accidents damaging the fuel tank, consumer disposal of "old" gasoline, emissions from older marine engines, and to a lesser degree, stormwater runoff, and precipitation mixed with MTBE in the air.

Florida has monitored the concentration of MTBE at petroleum contaminated sites since February 1990. The cleanup target levels for groundwater have been established by rule at 50 parts per billion based upon organoleptic (taste and odor) factors. Groundwater contaminated with MTBE is frequently found at gasoline discharge sites. However, because of the shallow groundwater conditions and highly permeable soils in the majority of the populated areas of the state, most sites that have a discharge of petroleum products result in groundwater contamination by the fuel mixture, meaning the sites are contaminated with both MTBE and other petroleum chemicals.

Also, public drinking water systems are sampled for MTBE under the federal Safe Drinking Water Act as an "unregulated contaminant" and there have only been a couple of unconfirmed detections at public drinking water systems in Florida. There have been no detections of MTBE through the DEP's ambient ground water monitoring program.

MTBE is not currently regulated under federal and state drinking water laws, although the DEP has required certain public drinking water systems to sample for it as an "unregulated contaminant." At 20 parts per billion (the odor threshold, but below the concern for possible health effects), MTBE has shown up only a couple of times through unconfirmed exceedences at public drinking systems in Florida. People will generally smell MTBE in water and it becomes unpalatable before it becomes dangerous to drink.

In November 1998, U.S. EPA Administrator Carol Browner appointed a MTBE Blue Ribbon Panel to provide independent advice and counsel to the EPA on policy issues associated with the use of MTBE and other oxygenates in gasoline. The Blue Ribbon Panel issued its final report on September 15, 1999. Among other things, the panel recommended the following:

- Removing the current congressional CAA requirement for 2 percent oxygen in RFG
- Improving the nation's water protection program, including over 20 specific actions to enhance underground storage tank, safe drinking water, and private well protection programs.
- Reducing the use of MTBE substantially nationwide
- Maintaining current air quality benefits
- Accelerating research on MTBE and its substitutes

### **III. Effect of Proposed Changes:**

This bill requires the Department of Environmental Protection, in consultation with representatives of the petroleum industry, to study the effects and consequences of the use of the gasoline additive methyl tertiary butyl ether (MTBE) in this state, the areas of concern resulting from the use of MTBE, any alternative additives that may be used in place of MTBE, and the effects and consequences of using those alternative additives. The study must take into account the results of the study on MTBE conducted by the Blue Ribbon Panel of the U.S. Environmental Protection Agency, determine the applicability of the results of that study, and determine actions that should be undertaken in this state.

By January 15, 2002, the DEP shall submit to the Legislature a report containing the results of its study and the department's recommendations for legislation, if any. The Legislature requests that representatives of the petroleum industry participate with the DEP in the study to the extent practicable.

### **IV. Constitutional Issues:**

#### **A. Municipality/County Mandates Restrictions:**

None.

#### **B. Public Records/Open Meetings Issues:**

None.

#### **C. Trust Funds Restrictions:**

None.

### **V. Economic Impact and Fiscal Note:**

#### **A. Tax/Fee Issues:**

None.

#### **B. Private Sector Impact:**

None.

**C. Government Sector Impact:**

The Department of Environmental Protection has indicated that the fiscal impact to the agency is indeterminate but it is anticipated to be substantial. Existing resources will be used to conduct the study.

The Division of Water Resource Management indicates there will be staff costs associated with reviewing databases, further reviewing MTBE and other contaminant data to draw conclusions about impacts and risks, and reviewing EPA and other published health-effects information. Without a more precise projection of the scope of work involved in such reviews, it is not possible to determine whether additional resources beyond the current budget and staff would be necessary. The division believes that at a maximum, one additional position and related salaries and benefits funding might be necessary; however, the exact level of appropriation required to support such a position would depend upon the extent of work required.

The Division of Waste Management agrees that staff time will need to be devoted to such activities, but believes that existing staff can accomplish this work. There may be a need to devote approximately \$20,000 in Other Personal Services (OPS) funding to contractual agreements with the University of Florida for toxicological work associated with this initiative, but the division believes that this can be absorbed from within existing resources.

The Division of Air Resources Management believes this study could be accomplished with existing staff resources, assuming the present level of staffing.

**VI. Technical Deficiencies:**

The bill uses the acronym "MTBE" without ever spelling it out. It is suggested that the first time it is used on page 1, line 17, "methyl tertiary butyl ether" should be inserted.

**VII. Related Issues:**

None.

**VIII. Amendments:**

None.