United States General Accounting Office

GAO Testimony

For Release
on Delivery
Expected at
10:00 a.m. EDT
Wednesday
June 20, 1990

Consumers Have Limited Assurance That Octane Ratings Are Accurate

Statement of
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Before the
Subcommittee on Energy and Power
Committee on Energy and Commerce
House of Representatives

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the results of our nationwide review, which you requested, on gasoline octane labeling.[1] A major concern of consumers buying gasoline is that they purchase gasoline with an octane rating that meets their vehicles' octane requirements. Gasoline is generally sold to consumers in three different octane levels--87, 89, and 91 or above. These octane ratings are posted on the retail gasoline pumps. Octane mislabeling occurs when gasoline is sold with an octane rating lower than posted on the pump.

In summary, we found that consumers have little assurance that they are receiving the octane they are paying for at the gasoline pump. Our review showed the following:

-- While the Petroleum Marketing Practices Act provides for federal regulatory controls to ensure the accuracy of gasoline octane ratings, neither the Federal Trade Commission (FTC) nor the Environmental Protection Agency (EPA), who are tasked with octane posting and enforcement responsibilities under the act, have implemented a system of controls to ensure that the act's objectives are met.

-- Octane mislabeling is occurring--and it is costly to consumers--but the extent of mislabeling nationwide is unknown.

-- According to the FTC, not all motor fuels are covered by the act--particularly newer alternative fuels used to combat automotive air pollution. The act needs to be amended to ensure that octane ratings are posted for all

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[1]Gasoline Marketing: Consumers Have Limited Assurance That Octane Ratings Are Accurate, (GAO/RCED-90-50, Apr. 16, 1990).

motor fuels. It should also be amended to allow states more latitude in taking enforcement actions against octane mislabelers.

-- Ensuring the accuracy of octane ratings need not be entirely a federal effort. There are options for involving the states more in implementing the act which could provide greater assurance that consumers receive the octane they pay for. About half the states currently have or are considering instituting octane testing programs.

FTC AND EPA HAVE NOT EFFECTIVELY IMPLEMENTED THE PETROLEUM MARKETING PRACTICES ACT

In 1988 American consumers purchased over 113 billion gallons of gasoline. As gasoline is refined and transported through a complex distribution system to retail stations, gasoline octane ratings can be accidentally or intentionally mislabeled. Using gasoline with too little octane can damage an engine, lower engine efficiency, reduce mileage and even increase polluting emissions. Unfortunately, consumers cannot determine octane ratings visually or in other ways that allow them to know if they are getting what they are paying for.

The 1978 Petroleum Marketing Practices Act provides for a uniform nationwide system for ensuring that octane ratings are posted at the gasoline pump so that the consumer is assured of getting the correct octane gasoline for his vehicle. The act requires FTC to set and define gasoline certification and octane posting requirements and directs EPA to (1) inspect retail stations nationwide to ensure that octane ratings are correctly posted and (2) test the gasoline sold to ensure that the posted ratings are accurate. EPA is to report inspection and test results to FTC, which is authorized to prosecute violators and monitor compliance with the act.

Our review showed that octane ratings are generally posted on the pump, and that in 1980 and 1981, the first years after the act was enacted, EPA did test gasoline octane ratings. Our analysis of 1,388 samples that EPA was able to provide us from those early tests showed that about 7 percent of these samples were mislabeled below the posted rating by at least six-tenths of one point. However EPA has not tested octane ratings at retail stations since 1981. We also found that generally FTC has not followed up to ensure that the act's octane testing requirements are met; nor has FTC prosecuted any violators.

EPA and FTC officials cited staff and budget cuts as reasons for not implementing the act's requirements. These officials stated that the Congress had not provided any funds to test octane ratings; each test costs about $100. Neither agency, however, informed the Congress of any inability to execute the program without additional funds. EPA officials also told us that since FTC did not use the early test results to prosecute octane violators, they could see few benefits from spending additional public funds to test octane ratings. Thus, there are no federal controls in place to ensure the accuracy of octane ratings.

MISLABELING OCCURS BUT EXTENT IS UNKNOWN

Although there is no current information at the federal level on the nationwide extent of mislabeling, we did obtain industry and state information that indicates that mislabeling is occurring. While the information is not sufficient to determine the extent of octane mislabeling nationwide or the source of mislabeling, it does indicate that consumers may be paying millions of dollars for gasoline octane they do not receive.

Industry Mislabeling Information

During our review, we asked EPA to analyze data it compiles from biannual gasoline quality surveys conducted by the Motor Vehicle Manufacturers Association (MVMA). MVMA is a trade association that tests gasoline characteristics nationwide. One characteristic tested is the octane rating. EPA's analysis of surveys conducted between 1979 and 1987 revealed an average of about 9 percent of the gasoline sampled in markets representing over 90 percent of total domestic consumption was mislabeled by more than six-tenths of a point below the posted octane rating. In addition, the analysis showed that mislabeling occurred more frequently in premium (higher octane) gasoline. About 11 percent of the premium samples tested were mislabeled.

Since our report, we have obtained data from EPA on MVMA's 1988 test results--which is the most current full year for which data are available. The results of the 1988 tests show an overall decrease in mislabeling by about 2 percent from the 1979-87 average. Although the statistics are better for 1988 when compared with prior years, the data continue to show that mislabeling is occurring.

State Mislabeling Information

Currently, 23 states test gasoline octane ratings through their own initiative.[2] We obtained test results from 11 of the testing states and found that in the majority of these states, mislabeling was less than 2 percent for the 1985-88 period.

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[2]At the time of our field work, 20 states had octane testing programs. Subsequent to our field work, Missouri, Tennessee, and Arizona began octane testing programs and the State of Washington will begin its testing program in July 1990. Michigan plans to begin testing in 1991 when its testing laboratory is completed. Attachment I shows the testing states.

Officials from the testing states attributed the low rate of mislabeling to their state octane testing and enforcement programs.

On the other hand, officials in seven states we visited that did not have an octane testing program believed that mislabeling was a problem in their states. Two of these states, Oregon and Tennessee, conducted their own one-time tests in 1987 and 1988, respectively, because state officials were concerned about mislabeling. Each states' test results reported about 22 percent mislabeling. The average difference between the actual and posted octane ratings was 1.5 and 1.9 octane numbers, while the largest difference was 5.9 octane numbers. (See attachment II.)

During our review, officials from two other non-testing states, Michigan and Missouri, expressed concerns about octane mislabeling in their states. At our request, EPA arranged to test the octane ratings of 65 gasoline samples collected by state officials from retail stations, primarily in the Detroit and St. Louis areas. State officials collected the samples from retail stations suspected of selling mislabeled gasoline, based on consumer complaints and the observations of state inspectors. Although the number of samples was small, the test results showed 52 and 53 percent mislabeling, respectively. The average difference between the actual and posted octane ratings in each state was about 2.2 octane numbers--the largest difference was 5.6 octane numbers. (See attachment II.) We turned these tests results over to FTC. The agency told us that they will be taking enforcement action against the violators.

Testing Protects Against Octane Mislabeling

Officials from both testing and non-testing states agree that testing octane ratings to ensure that posted ratings are accurate is an effective deterrent to mislabeling. According to officials from testing states, highly visible and frequent octane testing,

combined with strict penalties, decreases octane mislabeling and cheating. For example, during Arkansas's first year of octane testing, 1975, officials reported 24 percent mislabeling. Mislabeling in the state has decreased considerably since then, averaging about 4 percent between 1985 and 1988.

In addition, after our field work, Missouri began an octane testing program in September 1989, and Tennessee began a testing program in March 1990. Missouri officials reported mislabeling of about 14 percent during the last quarter of 1989 and about 8 percent during the first quarter of 1990. Tennessee officials reported about a 15-percent violation rate in their initial tests. Officials of both states reported that the presence of a program has helped bring down the violation rate. While we cannot say that mislabeling is a problem in all states that do not have a testing program, information and comments provided to us during our review indicate that there is a strong possibility that mislabeling is occurring in those states that do not test octane.

IMPACT OF MISLABELING ON CONSUMERS

When consumers buy gasoline with an octane rating lower than the rating posted on the pump, they are paying for octane they do not receive. The amount of money can be significant on a nationwide basis. For example, let's assume that 9 percent of the 113 billion gallons of gasoline sold annually was mislabeled--which is the amount found in the MVMA data--by just one-half octane number and that each octane number represents 3 cents. This would mean that consumers could be paying about $150 million for octane they do not receive. Should the mislabeling be on the order of two octane numbers, as was the case in the Missouri and Michigan tests, the nationwide costs to the consumer could be $600 million or more. Until we have better testing information, which is EPA's responsibility, it is difficult to predict with any degree of certainty the magnitude of mislabeling costs.

SOURCES OF MISLABELING IN THE DISTRIBUTION SYSTEM

While mislabeling may occur at any place in the gasoline distribution system, industry officials told us that there is more potential for it to occur at distributors or retail stations than at refineries, pipelines, or bulk terminals. They said that quality control procedures exist throughout the distribution system, but they cover the refiners, pipelines, and large bulk terminals more extensively than distributors and retail stations. Refinery and bulk terminal officials said that they have little control over the gasoline after it leaves the terminal.

State and industry officials noted that quality control procedures are generally more lax at the lower distribution and retail levels of the gasoline distribution system. Also, in some areas, deliveries of gasoline are commonly made when a retail station is closed and there are no station personnel present, and in many cases the stations are staffed with inexperienced or part-time personnel. Wholesale and retail gasoline station association officials generally did not believe octane mislabeling was a problem but agreed that there are fewer controls to detect octane mislabeling at the distribution and retail levels.

THE ACT'S RESTRICTIONS

During our review we found that FTC has interpreted the act as applying only to traditional gasoline fuels and excluded the newer gasoline-alcohol blends from the act's octane posting requirements. In 1979, an FTC staff opinion exempted gasohol, which is a blend of 90-percent gasoline and 10-percent ethanol, from the act's octane certification and posting requirements because the statutory definition of gasoline did not include such fuels.

FTC has not issued similar staff opinions on other gasoline-alcohol blends or other alternative fuels; however, FTC officials told us that such fuels would also be exempt following the same rationale used in 1979. As federal, state, and local governments increasingly require the use of these and other alternative fuels in urban areas to reduce air pollution, consumers could be without information on the octane levels of these newer fuels. At the close of our review, FTC officials advised us that they are reconsidering the rationale behind the 1979 opinion with a view toward making gasoline-alcohol blends and other composite fuels subject to the act.

We are also concerned that the act appears to preempt any applicable state or local enforcement provisions differing from those of the act. Section 204 of the act provides that provisions in state laws are to be the same as the applicable provisions of the federal act. State officials are concerned about this apparent preemption of some existing state enforcement provisions.

Officials from states that test octane ratings believe other remedies and penalties can be more effective and cost-efficient in ensuring posted octane ratings are accurate but expressed concern that such actions could be challenged as being outside the authority of the act. For example, state officials contend that the formal court procedures required to bring a civil action are too time-consuming and cumbersome. They believe that stop-sale orders, which some states use to immediately halt the sale of mislabeled gasoline, can be more effective in ensuring compliance with the goals of the act. The act would seem to preempt this option.

Up to now this conflict has caused few problems, since most states have not considered the effects of the act's preemption clause. However, in early 1988 California officials dropped criminal charges against a large distributor for octane

mislabeling because a San Diego City Attorney's opinion concluded that the 1978 act preempted the state law and precluded action by the state. In this case, the state law was much stricter than the 1978 act because it included criminal prosecution and up to 6 months in jail and a $1-million fine.

Draft legislation you have proposed to amend the act addresses both these issues. Enactment of these amendments should clarify the act on these points.

OPTIONS FOR INCREASING THE STATE ROLE

According to FTC and EPA, monitoring compliance with the act and prosecuting violators are not possible without additional funds. Neither FTC nor EPA had an estimate of how much it would cost to carry out their testing and enforcement responsibilities. We believe that since about half the states currently have or are considering instituting octane testing programs, there may be options for formally involving the states in carrying out the act's objectives. State officials interviewed during our review indicated an interest in such an approach.

Officials we talked to from all of the states we visited were generally in favor of state testing and enforcement. According to officials from the testing states, ensuring that octane ratings are posted accurately and that mislabeling is prosecuted is primarily a local responsibility and it is more effectively dealt with at the state--not national--level. However, several state officials were against the federal government's mandating state octane testing without providing funds for or sharing the costs of such programs. An argument for involving the states in implementing and enforcing the act is that 23 states are already performing octane tests and more are planning or considering octane testing programs.

SUMMARY

In summary, Mr. Chairman, the Congress passed the 1978 act to provide assurance to consumers that the posted gasoline octane ratings were accurate nationwide. This assurance, however, is not being provided because there are no federal controls in place to monitor the accuracy of octane postings. Furthermore, there is (1) doubt that newer gasoline-alcohol blended fuels--or future fuels that may become available to abate vehicle pollution--are subject to the act's octane posting requirements and (2) concern in the states that the act's provisions may limit state enforcement efforts.

We believe that there are options for including the states in the program in a way likely to result in greater assurances that the act's objectives are achieved. Our April 1990 report recommended that such options be explored, and in doing so a number of factors such as the cost, staff requirements, range of enforcement actions, and the risk to consumers need to be considered. Control measures needed to ensure program success also should be an integral part of each option considered.

We also recommended that the Petroleum Marketing Practices Act be amended to (1) include octane certification and posting requirements for gasoline-alcohol blends and other alternative motor fuels that may become available to reduce air pollution and (2) make it clear that states may employ a range of remedies broader than those available under the act to enforce octane posting requirements.

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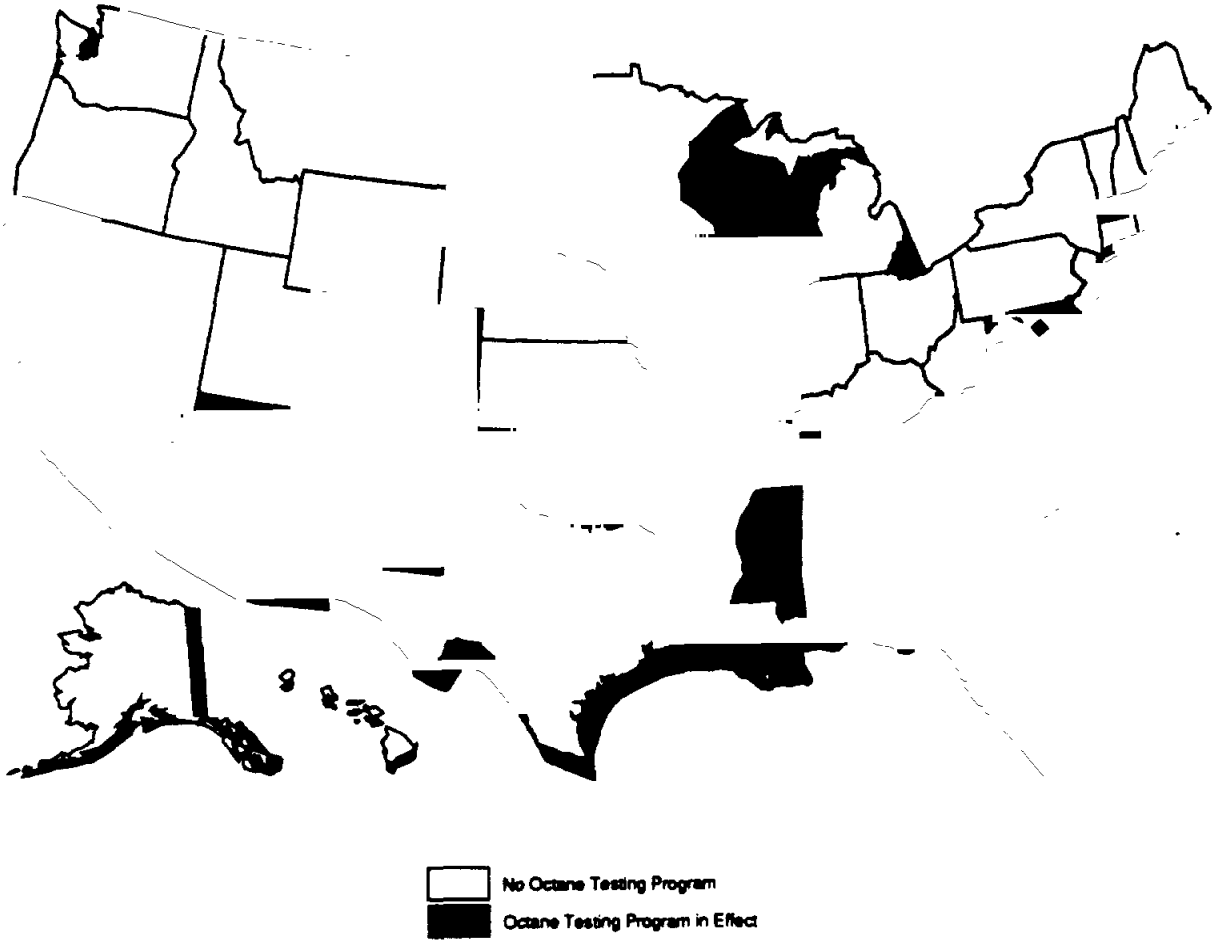
This concludes my prepared statement. I would be pleased to respond to any questions you or Members of the Subcommittee may have.

ATTACHMENT I

GAO States With Gasoline Octane Testing Programs



ATTACHMENT II

OCTANE TEST RESULTS

State	Total samples	Samples mislabeled	Percent mislabeled	Mislabeling criteria[a]
Oregon	110	24	21.8	0.6
Tennessee	81	18	22.2	0.6
Michigan	27	14	51.9	0.6
Missouri	38	20	52.6	0.6

[a]We applied a six-tenths octane point mislabeling criteria to determine the number of violations based on tolerance levels used by some testing states and the American Society of Testing and Materials in their procedures for testing octane. If posted ratings exceeded actual ratings by this amount or more, a violation occurred.