

STATEMENT OF
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BEFORE THE
SUBCOMMITTEE ON THE ENVIRONMENT
COMMITTEE ON COMMERCE
UNITED STATES SENATE
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Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to appear before you this morning to discuss the views of the Environmental Protection Agency on S. 2062, "a bill to prohibit the introduction into interstate commerce of nonreturnable beverage containers." This measure would impose a mandatory two cent deposit on containers which could be used interchangeably by various beverage manufacturers and bottlers and a 5 cent deposit on all other beverage containers for sale or shipment in the United States. While the bill would not prohibit the use of metal cans, it would ban those metal containers with detachable tab tops.

S. 2062 is modeled after the beverage container law which was enacted by the State of Oregon in October 1972.

As a Nation, we Americans consume more bottled soft drinks and malt beverages than any other people in the world. Indeed, there are few national habits more typically American than taking time out for "the pause that refreshes." Bottled beverages, whether we like it or not, are truly part of the American life style.

While the soft drink and beer industries have grown over the last twenty years in response to the demands of a growing and thirsty population, the consumption of beverage containers has also increased - but at a rate in considerable disproportion to both population trends and beverage consumption.

Between 1959 and 1972, the quantity of beer and soft drinks consumed in the United States increased 33% per capita. During this same time period, the number of beer and soft drink containers consumed skyrocketed by 221% -- from 15.4 billion units in 1959 to 55.7 billion units in 1972. This dramatic increase in container consumption can be traced, in large part, to an increase in the use of the non-refillable container.

To borrow another phrase from the beverage industry, we Americans have adopted over the years a "no deposit, no return" attitude about our resources which has become increasingly troublesome now that energy and materials are in short supply.

Nowhere is our "throw away" style of life more apparent than along the streets and highways of this country.

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Beer and soft drink containers form a large and highly visible segment of roadside litter. According to a privately commissioned study, in 1969, discarded beverage containers were estimated to comprise 19.7% of highway litter by item and between 54 and 70 percent by volume, based on observations of the Oregon State highway department.

Relating these figures to the broader solid waste picture, we find that approximately 8.2 million tons of beer and soft drink containers were produced and discarded in the U.S. in 1972. This figure represents 21% of all packaging wastes and approximately 8% of the total product waste generated by business and commercial establishments, households and institutions. Beverage containers are the most rapidly growing segment of all municipal waste with a growth rate of approximately 8% per year.

While a concern for the environment and the problems of litter and solid waste disposal serves as the more obvious incentive to reduce the burgeoning number of discarded beverage containers, we have found that a return to refillables has undeniable materials and energy benefits as well. Discouraging the use of "throwaway" containers is indeed one practice which fully satisfies the demands of both environmental enhancement and energy conservation.

In 1972, beverage container production resulted in the use of 6 million tons of glass, 1.6 million tons of steel, and 575,000 tons of aluminum. Moreover, beverage container consumption results in the use of approximately 1% to 2% of energy used by all U.S. industries.

Our studies show that taking into account the energy demands of both the manufacturing and refilling process, a refillable bottle making 5 trips has been found to use one third less energy than that required merely to produce one nonrefillable glass or aluminum container. This is a significant energy savings when we consider that most returnable bottles make upwards of 10 trips, and 25 to 30 trips per bottle is not unusual.

The trend toward increased use of nonrefillable containers is likely to continue over the next decade if steps are not taken to slow this spiraling demand for throwaways. By 1980, the 55.7 billion figure for containers consumed is expected to rise to 80 billion units, with the greatest growth anticipated for the aluminum beverage container.

Public officials and private citizens alike have watched with increasing concern the proliferation of discarded bottles and cans along our highways, parks and beaches. Aside from local anti-litter laws and privately-sponsored clean-up campaigns, efforts to come to grips with the problems associated with the careless disposal of non-returnables were ineffective until recently.

In 1970, with the enactment of the Resource Recovery Act, the Environmental Protection Agency was given authority to investigate the beverage container situation. Section 205 of that Act directs EPA to study the recovery of resources from solid waste and the reduction of solid waste at the source. Beverage containers as well as other types of packaging were among those areas studied under this authority.

Our Second Report to Congress, transmitted in March of this year pursuant to Section 205, discusses our work in the area of beverage containers and outlines the major options available to reduce the generation of disposable bottles and cans.

Briefly, we found three major types of strategies that have been proposed to either reverse the trend toward refillable containers or reduce the beverage container portion of litter: taxes on beverage containers to finance litter clean-up, a ban on the manufacture and sale of non-refillable containers, and a mandatory deposit system, such as that contained in S. 2062.

(1) Litter Tax. The litter tax would require that a minimal additional sum, perhaps \$0.005 per container, be paid on the sale of each container for beer or carbonated soft drinks. The tax could be imposed at the point of

purchase of the container by the beverage industry. Litter taxes could be imposed at the State or local level, as in the State of Washington. Where implemented at the State and local level, the costs and benefits must be analyzed in relation to the characteristics of the particular area. While a low litter tax might not cause any change in the rate of littering, it would raise revenue to be used for litter collection. Such a tax would not affect the trend toward non-refillables.

(2) Ban on Nonrefillable Containers. A ban on non-refillable containers would prohibit utilization of any container other than one which is refillable. Bottlers of beer and soft drinks would probably place deposits on their refillable beverage containers to retrieve them for refilling. As for the drawbacks associated with such an approach, such a ban would completely eliminate the beverage can manufacturing industry as well as the contract canning industry. The uses of steel and aluminum for beverage cans would also be eliminated. The State of South Dakota has recently enacted a law prohibiting the sale of beverage containers which are not reusable or biodegradable.

(3) Mandatory Deposit. The mandatory deposit alternative would require the retailer to pay anywhere from 2 to 10 cents for every empty container of beer and carbonated soft drinks. The retailer would be required to accept from the consumer

any empty container of the kind, size, and brand sold by that retail outlet. Retailers, in turn, could return empty containers to the distributor who would also be required to pay the stipulated refund.

Mandatory deposit legislation is now in effect in the States of Oregon and Vermont. In Oregon, the law has been upheld by the Oregon Supreme Court. The Vermont law has also recently been upheld in the courts. However, the laws that have been passed in Bowie, Maryland, Loudoun County, Virginia, and Ann Arbor, Michigan, have not been implemented due to legal challenges.

Data presently available from the operation of the various State and municipal mandatory deposit programs reflect both the merits and the drawbacks of such a system.

Studies by both Research Triangle Institute and Midwest Research Institute indicate that mandatory deposit legislation is likely to result in decreases of 60 to 95% in the number of beverage containers discarded as litter. Preliminary data from Oregon support these analyses as they illustrate beverage container litter reductions of from 75 to 85%. Such a mandatory deposit system would be likely to result in a decrease in solid waste of from 70-75% of the beverage container portion of the amount of total product waste, or 5-6 million tons.

Benefits produced by mandatory deposit legislation in reducing energy consumption depend upon the mix of containers available and the number of trips per container. Based on the achievement of a 90% refillable bottle market in which each container makes 10 trips, we estimate a reduction in the energy required to produce beverage containers of approximately 194 trillion BTU's of energy. This would be equivalent to 92 thousand barrels of oil per day.

Turning now to the economic effects of mandatory deposit legislation, predictions on beverage sales impacts range from no sales decline to a decline of 8%. Preliminary experience in Oregon indicates a drop in the beer growth rate from 6% in previous years to 1.2% in 1973. However, it is important to point out that an analysis of beer sales trends over the past 10 years has indicated that sales in 1973 show no significant deviation from the trend line. It would therefore be difficult to prove any adverse sales impacts from the Oregon beverage container legislation.

No comprehensive data on soft drink sales in Oregon are as yet available. A recent survey by Oregon State University estimates a 10% rise in soft drink sales, a figure that is consistent with previous years. Although comprehensive beverage sales data are not yet available from Vermont, it appears that the law in that State has resulted in some sales decline.

One major drawback of the implementation of a mandatory deposit program is the potential for considerable temporary industrial disruption. A study performed by Research Triangle Institute estimates that in 1969, a deposit measure would have resulted in a loss of approximately 60,500 jobs nationally, primarily in the container manufacturing industries, and a gain of 60,800 jobs, primarily in the retail and product distribution sectors of the economy. This would mean a net increase in total jobs. It is important to note, however, that the jobs gained would be lower paying than those lost. Thus such a measure might be likely to produce a net loss in labor income.

Mandatory deposit legislation is also likely to result in a decline in tax revenues during the period of transition to a refillable system. This would be due to the fact that a majority of beverage can lines would become obsolete, as would a large percentage of container handling equipment. Estimates of losses in revenue from beer excise taxes and corporate write-offs for obsolete equipment during the first year of transition range from \$271 to \$803 million nationally. These figures would probably decrease if beverage sales did not decline, and if beverage cans continued to be sold.

Mandatory deposit legislation would also affect the consuming public. While the average price paid by consumers

for beer and soft drinks should decrease because the higher price nonrefillable containers would not be available, increased handling costs and costs related to equipment changes in the brewing and soft drink industries are likely to be passed on to the consumer. Nevertheless, it is likely that the consumer could pay slightly less on the average for beer and soft drinks under a mandatory deposit system.

In this regard, it is interesting to note that the price of soft drinks in the State of Washington where no mandatory deposit law is in effect rose 12% as compared with only an 8% rise in the neighboring State of Oregon, which had a mandatory deposit law in effect during that same period.

Mandatory deposit legislation may result in limitations on both brands and sizes of beverage containers available to the consumer. Preliminary data from Oregon support this indication as many foreign beers and some soft drink brands cannot be obtained in the same sizes in which they were available before the law went into effect.

It should be emphasized that these considerations are based upon a fairly broad-brush national macro-economic assessment. There are a number of other micro-economic

effects that could occur which are much more difficult to predict, and have not been the subject of analysis to date. These include shifts from regional to local beverage distribution systems and other inter-firm and inter-product effects.

Based upon our observations in the States and localities which have enacted mandatory deposit laws, we believe that a mandatory deposit program results in conservation of energy and materials and a reduction in solid waste and litter caused by beverage containers. We would therefore favor the adoption on a nationwide scale of a mandatory deposit system to eliminate differences in beverage container programs from State to State and to assure a uniform and equitable program for manufacturer, bottler, laborer, and consumer alike.

Associated with a sudden shift to refillable systems, however, is the likelihood of some economic disruption and unemployment. In order to achieve the resource and energy recovery benefits of such a program while at the same time minimizing the adverse economic repercussions, we would recommend that such a nationwide system be implemented over an extended period of time and with proper controls. Such a phasing-in would greatly reduce industrial dislocation.

If an immediate shift to a national mandatory deposit system went into effect in 1975, based on the achievement of

a 90% refillable bottle market, we estimate that approximately 57,000 employees in the metal and glass container industries would be affected.

Phasing in such a system by 1980, however, would reduce the employment dislocations by 32%, thereby affecting 39,000 employees rather than 57,000. This would mean an average of less than 7,000 employees dislocated per year. Further reductions in dislocation could be achieved by an even more lengthy phase-in period. If, for example, a 90% refillable bottle market were to be achieved by 1985, an estimated 16,000 employees would be affected, less than 3,000 per year.

These dislocations must also be viewed in light of job opportunities available for the displaced workers within their occupational category and industry. Assuming a 90% refillable market by 1980, we have been advised by the Bureau of Labor Statistics that for each job lost, a minimum of 70 job opportunities would become available in the same occupational category. For certain job categories, several thousand job opportunities would be made available for every dislocated employee. These job opportunities do not take into account the large number of jobs that would be created in the beverage manufacturing, retail, and distribution sectors of the economy by a return to a refillable system.

As to the specific provisions of S. 2062, we would offer several observations. We have considerable difficulty with the failure of the bill to provide for a phase-in period. Without some equitable and efficient technique for phasing-in the deposit requirements, we would anticipate severe economic disruptions and dislocations. We are not sure in our own minds how a "phase-in" could best be accomplished.

Another problem stems from a provision in the bill which might be construed as drawing a distinction between interstate and intrastate beverage shipments. Such a distinction could well defeat a national program, and it would clearly result in inequities.

Since the success of any program of mandatory deposits depends on public awareness and response, we believe the approach taken must be simple and unmistakably clear. The multiple definitions of a variety of beverage containers could be confusing.

However, aside from the difficulties we have with many of the specific provisions of S. 2062, we are in accord with the basic idea of the bill.

Mr. Chairman, we could go on and on in the collection and examination of data, and in the analysis and re-analysis of probable effects from any regulatory approach to the problems of beverage container consumption and litter. We have studied this matter intensively and we believe that we

now have a reasonably reliable body of data concerning the problem. We have the benefit of the Oregon experience. We also have the prospect of a proliferation of State and local laws addressing the problem with differing and perhaps contradictory approaches.

As I mentioned earlier, we do lack some economic data concerning possible market effects of a mandatory deposit requirement. On the other hand, the information and data we have concerning the environmental effects of such a requirement we believe are persuasive.

Because of the difficulties we have with the provisions S. 2062 we do not recommend its enactment. However, we do endorse its underlying premise--that a national requirement of mandatory deposits for beverage containers can make a significant contribution toward the solution of the environmental problems associated with no-deposit, no-return containers.

Thank you.

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