The Impact of Proposed EPA Regulations on the Economy, the Environment, and the Reconditioning Industry

Ike Brannon, Ph.D.
David Kemp

1 October 2023

Executive Summary: A wide variety of goods are transported in metal or plastic containers that are reconditioned and reused after they are emptied, and an entire industry exists to do precisely this. Reconditioning used containers has great economic as well as environmental benefits, as reusing a container is much more cost efficient than producing a new container and also results in less waste and emissions than discarding used containers and only using new ones.

However, the EPA has recently taken steps that would effectively result in the diminution or elimination of the reconditioning process altogether, which would require the production--and disposal--of millions more barrels and containers each year.

The problem that these regulations would ostensibly address--namely, that container reconditioners occasionally take possession of containers that are not fully empty and must dispose of the detritus--is a relatively minor one and something that can be dealt with much more cost-effectively with regulations circumscribing how firms should deal with such eventualities.

The irony of the EPA prescribing a solution that would be materially worse for the environment than the status quo should induce regulators to give pause and reconsider such proposals.

Ike Brannon is a fellow at the Jack Kemp Foundation and president of Capital Policy Analytics
David Kemp is an economist in Washington, D.C.

Introduction

The United States Environmental Protection Agency (EPA) has recently expressed concerns regarding the management and reconditioning of used industrial containers. The Agency published in August 2023 an Advance Notice of Proposed Rulemaking, following issuance of a report in September 2022 that summarized what it perceived as shortcomings in several industrial container reconditioner facilities.[1] The Agency's Advance Notice of Proposed Rulemaking provides a series of regulatory and non-regulatory options regarding operational changes that could be imposed upon both the industry and its customers.

The proposed regulatory options set forth in the ANPRM could drastically change the container reconditioning industry, with the result that the United States would end up with a greatly diminished reconditioning industry or, perhaps, with no reconditioning industry at all. With many fewer or no industrial containers being reconditioned, the approximately 30 million reconditioned containers sold to customers throughout the U.S. each year would have to be replaced, presumably by new containers. Even assuming the availability of these new containers, this greater market reliance on new containers would impose significant costs on customers, the economy and the environment. We believe that the EPA's analysis fails to accurately present the economic benefits engendered by the existence of the industry.

What's more, we do not believe that the EPA's September 2022 report accurately portrays the operation of the industry today. Given the historical focus and anecdotal nature of the report, we suggest the report has a limited applicability to its ANPRM; Because the proposed regulatory changes could effectively eliminate the reconditioning industry, such a radical step should only be considered after fully evaluating the benefits the reconditioning industry generates for the customers of container reconditioners, the overall economy, and the environment.

The industry generates substantial economic and environmental benefits by allowing for the reuse of empty industrial packaging. The most common containers are 55-gallon steel and plastic drums and 275- and 330-gallon composite intermediate bulk containers (IBC) used to transport and store a variety of

---

[1] EPA, "Drum Reconditioner Advance Notice of Proposed Rulemaking," Office of Management and Budget Fall 2022 Unified Agenda of Regulatory and Deregulatory Actions, RIN 2050-AH29, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202210&RIN=2050-AH29 and EPA, "Drum Reconditioner Damage Case Report," September 2022, https://www.epa.gov/system/files/documents/2022-09/Drum_Reconditioner_Report_Final_Sept_2022_508.pdf.

materials, including fruit juices, adhesives, paints, cleaning products, lubricating oils, chemicals, and other liquids and solids, many of which pose no threat by themselves to the environment. After their use, reconditioners accept empty containers which they process to remove labels, residues and/or container coatings (by washing or pyrolysis treatment in a drum furnace, depending on the type of container) and then refurbish the container by removing dents, repainting, and/or replacing or repairing broken or damaged parts (depending on container type). Once reconditioned, the containers are tested to ensure safety in accordance with Department of Transportation regulations and then resold. When a container has reached the end of its life, a reconditioner processes the container to remove any residues and sells the container for scrap to allow the container materials to be recycled.

This reconditioning process helps businesses save costs both from purchasing containers (as reconditioned containers are less expensive than new ones) and the unnecessary disposal of used containers. In essence, the industry creates a cost-effective substitute for single-trip industrial containers, substantially lessening the economic cost to container users by facilitating container reuse.[2]

Reconditioning containers also provides environmental benefits over directly scrapping once used containers. Reconditioning enables "reuse" of containers and scrapping containers is "recycling." Recycling helps conserve natural resources, but reprocessing scrapped materials followed by the reformulation of those base materials – in this case metals and plastics - into new products requires more intensive energy use than reusing containers and also increases air and solid waste production. Importantly, containers that can no longer be reused are sent to scrap yards for further processing. Accordingly, EPA's waste management hierarchy and the Circular Economy protocols developed by the Ellen MacArthur Foundation,[3] reuse is almost always the most environmentally preferred strategy for industrial materials.[4] According to the EPA, "products should only be recycled if they cannot be reduced or reused."[5] Reconditioning industrial packaging extends the life of an

---

[2] "Life Cycle Assessment of Newly Manufactured and Reconditioned Industrial Packaging," Ernst & Young, October, 2015, for Reusable Industrial Packaging Association, https://www.reusablepackaging.org/wp-content/uploads/Life-Cycle-Analysis-Final-Oct-2015.pdf.

[3] "Circular Economy Introduction, Ellen MacArthur Foundation, https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

[4] EPA, "Sustainable Materials Management: Non-Hazardous Materials and Waste Management Hierarchy," https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy; and Ellen MacArthur Foundation, "What Is a Circular Economy," https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview.

[5] EPA, "Recycling in the United States," https://www.epa.gov/recycle/recycling-united-states.

industrial container and allows them to be used multiple times before they are ultimately scrapped. Importantly, direct scrapping of used containers that did contain hazardous materials and that have not been processed to remove any residues is in many cases illegal, violating both DOT hazardous materials transportation and EPA hazardous waste regulations.

A proposed regulatory change to the processing and reconditioning procedures of the container reconditioning industry must consider the value, in terms of both savings to businesses and to the environment, that the container reconditioning industry creates, especially considering that the proposed rule changes could potentially result in most of the companies in the industry unable to operate economically.

A Primer on the Industrial Packaging Industry

A variety of materials, including fruit juices, adhesives, paints, liquid detergents, lubricating oils, chemicals, and other liquids and solids are commonly transported in 55-gallon metal or plastic drums, 275- and 330-gallon composite intermediate bulk containers, and 275- and 330-gallon all-metal intermediate bulk containers. Once a company empties these containers, the emptier must manage them in accordance with a variety of regulatory requirements meant to protect human health and the environment.

Most emptiers work with one or several companies that specialize in properly managing and reconditioning these containers. Pickup and transport may be arranged by contract carriers or directly by a reconditioner using a company-owned fleet. Arrangements for transportation are typically facilitated by the reconditioner working cooperatively with the emptier. For larger emptiers, the reconditioner may position empty trailers on the emptiers' property, and staff employed by the emptier place the RCRA-empty containers in the trailer. When the trailer is ready for pick-up, the reconditioner obtains a signed document from the emptier stating that all the containers are RCRA-empty, transports the trailer to their facility and "stages" it so that it can easily identify the type of containers in the trailer.[6]

In accordance with customer and market requirements, the reconditioner shuttles the appropriate trailers to a dock where workers unload the containers. During this

[6] RIPA "Sample RIPA Empty Container Certification Form," https://www.reusablepackaging.org/wp-content/uploads/2022/02/2022-Sample-Empty-Container-Certification.pd.

phase of the management process, the workers will, by various means, determine if the container is RCRA-empty. The occasional non-RCRA empty container is identified and managed appropriately.[7]

For RCRA-empty steel and plastic drums, the containers are cleaned, de-dented and repainted if required, leakproofness tested and, if fit for service, marked with an appropriate UN mark, if necessary. Used labels and other process residuals, as well as spent wastewater, are safely managed in accordance with state or local permitting requirements. Reconditioners must also ensure that air emissions from such process operations are in compliance with all applicable state or local requirements. For intermediate bulk containers, the containers are processed in an appropriate manner and, like plastic drums, properly tested, marked and prepared for reuse.

The reconditioned/refurbished containers are then sold to customers to be used again.

The Impact of changing regulations

EPA's recent ANPRM contains a wide range of proposed regulatory and non-regulatory options to address the management of RCRA-empty and non-RCRA empty industrial containers.

One proposed regulatory change presented by the Agency is an end to the "empty container rule."[8] Under the Resource Conservation and Recovery Act (RCRA), the law that governs the proper management of hazardous and non-hazardous solid waste (and the regulations issued under RCRA), used industrial containers that meet the definition of "RCRA-empty" may be reconditioned without the need for further analysis and permitting. However, the RCRA empty container regulations require that the container emptier ensure the container is RCRA-empty before it is transported to a reconditioner for processing. As described in the regulations, generally this means the emptier must remove all materials from the container that can be removed using commonly employed practices and in no case may more than an inch of residue remain.[9]

---

[7] Reusable Industrial Packaging Association, "Responsible Packaging Management 2023," https://www.reusablepackaging.org/wp-content/uploads/2023/02/Responsible-Packaging-Management-2023.pdf

[8] Sam Hess, "EPA Weighs Changes To Drum Reconditioners' RCRA Waiver After Damages," *InsideEPA*, January 9, 2023, https://insideepa.com/daily-news/epa-weighs-changes-drum-reconditioners-rcra-waiver-after-damages.

[9] Residues of hazardous waste in empty containers, 40 Code of Federal Regulations 261.7 (1980), https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-261#261.7.

The reconditioning industry has substantial economic and legal incentives to ensure they only receive containers that are "RCRA-empty." In accordance with long-standing industry operating practices, when a container reconditioner receives a non-empty container, it should segregate the container, mark it to indicate the date of discovery and its origin, safely store it and make arrangements for the customer to retrieve it.[10] If the customer fails to do so, the reconditioner is burdened with the cost of characterizing, managing and properly disposing of the container contents. It is for these reasons that the Reusable Industrial Packaging Association (which represents over 90 percent of the reconditioning industry volume in the U.S.) has spent considerable time and money educating customers on the definition of RCRA-empty and created guidelines for the industry on how to properly manage non-RCRA empty containers. One important aspect of the empty container rule, acknowledged by EPA in the ANPRM, is that the legal burden of ensuring their containers are emptied falls on the emptier alone. (See FR 54542, Section V(A); Used Drum Generator and Transporter Issues.)

Despite these extensive measures to avoid receiving non-empty containers, it is inevitable that a small number of non-RCRA empty containers will find their way to container reconditioning companies. Ending the empty container rule will do nothing to improve the emptying process and will create an undue economic burden on the reconditioning industry by requiring container reconditioners to be treated as hazardous waste treatment, storage, or disposal (TSD) facilities, which would require them to incur substantial investment costs and higher ongoing annual expenses.

In fact, we believe that removing the empty container rule might cause some companies to be less diligent in emptying their containers because there would be no legal requirement that the container be RCRA-empty and no cost-savings that presently exist for sending containers to reconditioning companies would remain. In addition, emptiers would face increased administrative costs associated with sending their containers to a TSD facility (e.g., manifests, increased fees for transportation, etc.). Today, RCRA-empty containers are sent to reconditioners at

---

[10] See Paul Rankin, "EPA Drum Reconditioner Briefing and Advance Notice of Proposed Rulemaking," RIPA Comments to U.S. EPA on the Agency's "Damage Cases" Report, February 3, 2023, https://www.reusablepackaging.org/wp-content/uploads/2023/03/EPA-Letter-on-Damage-Report-020323.pdf; RIPA, "Responsible Packaging Management 2023," https://www.reusablepackaging.org/wp-content/uploads/2023/02/Responsible-Packaging-Management-2023.pdf; RIPA "Sample RIPA Empty Container Certification Form," https://www.reusablepackaging.org/wp-content/uploads/2022/02/2022-Sample-Empty-Container-Certification.pdf; RIPA, "Reconditioning Facility Operating Guidelines for the Inspection and Management of Containers," September 4, 2018.

little or no cost because the containers, after being processed and tested, have economic value in the resale market. If reconditioners had to operate as TSDs, the container's residual value would disappear because all containers would be managed in accordance with hazardous waste regulations.

Earlier, we stated that requiring reconditioners to operate as TSD facilities would reduce significantly (or eliminate entirely) the reconditioning industry. We presented this conclusion based upon the following analysis.

For starters, obtaining authorization to operate as a TSD facility, including costs related to preparing applications, testing, and acquiring technical support, are estimated to cost at least $250,000 for a wash operation and over $500,000 for a drum furnace.[11] Capital costs required for operation as a TSD facility are estimated at $1.5 million for a wash operation and $3 million for a drum furnace.

Besides higher up-front costs, reconditioners would face higher annual operating costs as a result of higher-cost liability insurance, additional employee training specific to hazardous waste treatment, storage and disposal, and related monitoring. All told, the initial fixed costs and annual recurring costs of complying with RCRA standards for TSDs amount to $2.8 million initially with an annual increase in operating costs of $600,000 for a wash operation. For a drum furnace operation, the additional up-front costs are approximately $4 million with an additional $700,000 in annual operating costs, we estimated from the data.

Updated data from 2021 indicates that fully half of all reconditioners have yearly revenues of less than $10 million, which suggests that these additional costs would likely preclude a majority of reconditioners from remaining in business. This means that any proposal that ends the empty container rule or results in significant additional costs on the reconditioning industry must recognize the high burden it would have on the industry and the potential to eliminate most or all of the economic benefits that the industry generates.

[11] Cost estimates from Ike Brannon and David Kemp, "The Economic Impact of Requiring Industrial Packaging Reconditioning Companies to Become Hazardous Waste Treatment, Storage and Disposal Facilities," Capital Policy Analytics, January 2018.

The Economic and environmental benefits of the reconditioning industry

The industrial container reconditioning industry creates substantial benefits both to its customers and to the environment, and helps businesses save costs on two fronts: First, reconditioned containers cost less than new containers, helping businesses save costs on the front end. Second, the reconditioning industry picks up used containers for free or at a very small cost, helping businesses save significant disposal costs on the back end.

The container reconditioning industry collected over 29 million containers and reconditioned and resold roughly 24 million containers in 2021, although the COVID-19 pandemic significantly depressed the market: In 2019 the industry collected nearly 39 million containers and reconditioned more than 33 million.[12]

In our previous research cited above we used industry data on the cost differential of new versus reconditioned containers and estimated that reconditioned open-head and tight-head 55-gallon steel drums cost roughly $10 and $13 less than a new unit, reconditioned 55-gallon plastic drums cost $10 less, and IBCs cost $10 less if they require their internal bottles replaced or $35 if they only require washing.[13] These estimates reflect the costs of buying reconditioned or new containers in bulk, and therefore likely underestimate the average cost differential.

Using the 2021 data, we estimate that eliminating the reconditioning industry and forcing customers to instead buy new containers would increase costs to businesses by roughly $280 million per year. However, because the 2021 data reflects a decrease resulting from the pandemic, 2019 statistics better represent the market going forward, we believe, and that data suggests that the elimination of the reconditioning industry would increase costs on businesses that currently use them by nearly $400 million per year.

Furthermore, ending the empty container rule would require containers that once contained hazardous materials, irrespective of the amount of that material remaining, to be treated by a TSD. The costs of treatment at a TSD do not vary if a

---

[12] 2021 data from Reusable Industrial Packaging Association, "RIPA Survey and Statistics: U.S. Industrial Container Reconditioning Industry, January – December 2021;" and 2019 data from Reusable Industrial Packaging Association, "RIPA Survey and Statistics: U.S. Industrial Container Reconditioning Industry, January – December 2019." Includes both open head and tight head steel 55-gallon drums, plastic 55-gallon drums, and both 275- and 330-gallon IBCs. Reports can be found at https://www.reusablepackaging.org/industry-codes-and-statistics/.

[13] Cost estimates from Ike Brannon and David Kemp, "The Economic Impact of Requiring Industrial Packaging Reconditioning Companies to Become Hazardous Waste Treatment, Storage and Disposal Facilities," Capital Policy Analytics, January 2018.

container is full of hazardous materials or is empty. Thus, as shown in the table below, the costs of disposal and transportation of containers is significant. Based on estimates of disposal costs, transportation costs, and estimates of the number of containers processed by reconditioners of different types and with different contents, the empty container rule and reconditioners help businesses save $10 billion per year.

	Disposal cost per container	Transportation cost per container	Total cost per container	Number of containers processed in 2021	Total cost avoided 2021 (million $)	Number of containers processed in 2019 (million $)	Total cost avoided 2019 (million $)
Steel drum containing solvents/flammable liquids	$110	$17	$127	3,578,290	$454.61	4,908,426	$623.59
Steel drum containing non-flammable liquids	$275	$17	$292	5,963,816	$1,741.71	8,180,710	$2,389.14
Steel drum containing solids	$425	$17	$442	2,385,526	$1,054.51	3,272,284	$1,446.50
Plastic drum containing solvents/flammable liquids	$110	$17	$127	755,055	$95.93	1,228,760	$156.11
Plastic drum containing non-flammable liquids	$275	$17	$292	1,208,088	$352.82	1,966,016	$574.17
Plastic drum containing solids	$425	$17	$442	1,057,077	$467.28	1,720,264	$760.43
IBC containing solvents/flammable liquids	$550	$25	$575	890,010	$511.76	755,040	$434.15
IBC containing non-flammable liquids	$1,375	$25	$1,400	890,010	$1,246.01	755,040	$1,057.06
IBC containing solids	$2,125	$25	$2,150	1,780,020	$3,827.04	1,510,080	$3,246.67
Total					**$9,751.66**		**$10,687.82**

Note: Disposal and transportation cost estimates based on consultations with reconditioning and waste disposal industry representatives. Transportation cost per container based on an estimate of $1,500 to transport a full load of containers (88 drums or 60 IBC) within 100 miles. Number of containers processed based on statistics of containers containing hazardous waste from RIPA, "RIPA Survey and Statistics: U.S. Industrial Container Reconditioning Industry" for 2019 and 2021 and broken down by types of waste (solvents/flammable liquids, non-flammable liquids, and solids) based on estimates from reconditioner industry representatives.

These estimates solely reflect the savings that accrue to businesses that use these containers and ignore the considerable environmental benefits the industry engenders, which are considerable. A 2015 report by Ernst & Young estimated the lifecycle carbon (CO2e) emissions of new industrial packaging versus similarly configured reconditioned packaging and found that reconditioning open-head steel drums, tight-head steel drums, plastic drums, 275-gallon IBCs, and 330 gallon IBCs reduce carbon emissions by 54, 48, 5, 205, and 243 lbs of carbon dioxide equivalents per container, respectively.[14]

As a result, the container reconditioning industry reduces carbon emissions by approximately 2 billion lbs. each year; using the federal government interagency working groups estimate of the social cost of a ton of carbon emissions of $51, this implies that the reconditioning industry helped avoid roughly $40 million in environmental damages in 2021 (and almost $50 million in 2019).[15] The EPA recently proposed to use $190 for the social cost of a ton of carbon emissions, which would result in an annual benefit of nearly $200 million.[16]

Additionally, the reconditioning of industrial packaging avoids further environmental costs beyond merely reducing carbon emissions: The Ernst & Young report found that, across a variety of measures of environmental damages, reconditioned containers scored better in terms of avoided environmental impact. All told, averaged across the measures, which also include ozone depletion, smog, and more, the manufacture of new IBCs is roughly 40 times more damaging, new

---

[14] "Life Cycle Assessment of Newly Manufactured and Reconditioned Industrial Packaging," Ernst & Young, October, 2015, for Reusable Industrial Packaging Association, https://www.reusablepackaging.org/wp-content/uploads/Life-Cycle-Analysis-Final-Oct-2015.pdf.

[15] Authors' calculations based on RIPA statistic reports for 2019 and 2020 and Ernst & Young carbon emission estimates. We calculated the 2021 estimates of carbon emissions for IBCs using a weighted average of carbon emissions of 275 gallon and 330 gallon IBCs based on 2019 statistics. Social cost of carbon from Interagency Working Group on Social Cost of Greenhouse Gases, "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide," Interim Estimates under Executive Order 13990, February 2021.

[16] Elijay Asdourian and David Wessel, Commentary: "What is the Social Cost of Capital?" Brookings Institution, March 2023.

open-head steel drums is nearly 15 times more damaging, new tight-head steel drums is more than 5 times more damaging, and new plastic drums is more than twice as damaging as reconditioning containers.[17]

A more stringent regulation of the industry, especially if that regulation proves costly enough to preclude its economic viability, will not lessen environmental damages on the whole. At best, elimination of the industry will simply transfer negative environmental impacts elsewhere, and at worst it will lead businesses to substitute toward more environmentally damaging alternatives and create further environmental inequities.

The Economic Impact of the Industrial Packaging Reconditioning Industry

In order to estimate the broader cost of policies that would effectively constrain or end the industrial packaging reconditioning industry, we performed an economic analysis of the industry's aggregate impact on the economy using the IMPLAN economic modeling system.[18] IMPLAN allows us to incorporate a wide variety of data and construct a model that links the various sectors of the economy together. This interconnection permits us to infer how changes in one sector impact the rest of the economy.

Part of the intuition built into the model is that a firm's contributions to the broader economy go beyond its narrow industry sector: the people it employs, the contractors and suppliers it works with, and the various economic actors it interacts with all must be considered. As a result, the aggregate economic activity generated can be quite diffuse and difficult to capture directly.

The Data

We obtained data from the Quarterly Census of Employment and Wages produced by the Bureau of Labor Statistics. We also used data from the County Business Patterns, collected by the U.S. census, and data contained in the Regional Economic Accounts, produced by the Bureau of Economic Analysis, for information on the geographic distribution of economic activity across the country.

---

[17] "Life Cycle Assessment of Newly Manufactured and Reconditioned Industrial Packaging," Ernst & Young, October, 2015, for Reusable Industrial Packaging Association, https://www.reusablepackaging.org/wp-content/uploads/Life-Cycle-Analysis-Final-Oct-2015.pdf.

[18] For purposes of this report, the term "industrial packaging" refers to containers with capacities above 30 liters and below 3000 liters that are used in business-to-business transactions. The most common of these containers are 55-gallon steel and plastic drums, and 275- to 330-gallon composite and all metal intermediate bulk containers.

We matched this data with the NAICS code information and reviewed the economic impact of both the reconditioning industry and the new industrial packaging industry.

The Various Ways the Industrial Packaging Reconditioning Industry Impacts the Economy

The impact the reconditioning industry has on the national economy goes beyond the direct economic activity of any individual company, and the IMPLAN model distinguishes its impact into three distinct channels:

Direct effect – This is what we can directly observe from the company's own economic activities. It includes its labor and capital expenditures as well as anything paid to subcontractors.

Indirect effect – This is what results from the increase in economic activity of the suppliers to the industrial packaging reconditioning industry. These firms would see their own economic activity—especially their employment and broader economic output—wax and wane with the demand for their goods and services from the industry. Without these supply chain relationships, the suppliers would either have to find new customers or scale down their business if the industrial packaging reconditioning industry were forced by regulation to cease operations.

Induced effect – This is the impact from increases in household spending resulting from the increased employment caused—either directly or indirectly—by the economic activity of the barrel reconditioners. For example, if the employees of these reconditioners earn $10 million, how and where they spend that income impacts the economy. The model estimates the proportion of the resulting spending that occurs within the United States, how that spending propagates through the economy, and the impact of that spending on businesses and workers within the nation.

The Industrial Packaging Reconditioning Industry & the US Economy

The industrial packaging reconditioning generated about $1.25 billion in revenue in 2019, an estimate we obtained from the industry's trade association, as well as on-the-record interviews with the owners and top level administrators of several major reconditioning companies. Using this data, as well as other publicly-available data, in an IMPLAN analysis of the industry, we estimate that the industry creates roughly 18,000 jobs in the United States, with approximately half of those jobs being people who work directly for the industry. The rest of the jobs

result from the aggregate economic activity generated by the industry that goes beyond its primary activities.

For instance, the spending done by its employees throughout the United States increases the demand for restaurants, leisure, and various other goods and services, which boosts demand and creates new jobs. Table One contains our estimates for jobs created in the United States. Table Two contains our estimate of the economic sectors positively impacted by the
reconditioning industry.

Table 1: Jobs Created

Impact	Employment	Labor Income	Value Added	Output
Direct	9,375	$718,750,000	$750,000,000	$1,156,250,000
Indirect	2,250	$187,500,000	$300,000,000	$575,000,000
Induced	6,375	$412,500,000	$718,750,000	$1,281,250,000
Total	18,000	$1,318,750,000	$1,768,750,000	$3,012,500,000

Table 2: Industries Impacted

	Employment	Labor Income	Output
Barrel Reconditioning	9,375	$512,500,000	$1,250,000,000
Business Services	1,375	$103,125,000	$225,000,000
Healthcare	938	$68,750,000	$131,250,000
Retail Trade	875	$31,250,000	$100,000,000
Restaurants	750	$18,750,000	$62,500,000
Finance Insurance & Real Estate	563	$56,250,000	$218,750,000
Housing & Dwellings	500	$10,625,000	$218,750,000
Wholesale Trade	375	$37,500,000	$150,000,000
Transportation	250	$11,250,000	$40,625,000

IMPLAN also allows us to approximate the tax revenue generated by the economic activity of the reconditioning industry at the federal, state, and local levels. We estimate the industry generates $235 million in federal tax revenue and $105 Million in state and local tax receipts.

Conclusion

The regulatory options identified in the ANPRM for the reconditioning industry would result in the diminution or elimination altogether of the practice of reusing the industrial containers used to transport products such as fruit juices, adhesives, paints, detergents, lubricating oils, chemicals, and other liquids and solids. While the EPA suggests that this might lessen the risks of environmental impacts, including for people who live near such facilities, these hypothetical benefits are uncertain and would be greatly outweighed by the national economic and environmental costs of such an action.

The economic savings from the practice of reconditioning exceeds a billion dollars a year, we estimate, and the industry employs thousands of workers—many of whom are minorities. The environmental benefits from the current practice are also sizable: ending this practice would entail a massive increase in the production of open head barrels and other containers, as well as a large increase in the number of these containers that would enter landfills.

It is not often that the EPA seeks input on regulatory options that would likely increase greenhouse gasses and other emissions and also generate landfill waste. Adopting those regulatory changes could result in dire environmental consequences without any environmental benefits.