

## Mandating the Minimum: Observations on California's Plastic Packaging Law

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California is one of the few states to require producers to support plastics recycling, including use of a minimum level of recycled plastic in certain plastic containers. A key program to accomplish this – the Rigid Plastic Packaging Container (RPPC) law (SB 235, Hart, Statutes of 1991, Chapter 769) – has been on the books for nearly three decades. How did it come about? What does it require? What has changed? Where is it headed? This brief paper offers an overview of the law, its successes and challenges, and a few observations about its role in recycling markets for California and beyond. It is intended to be a primer for the uninitiated and a synopsis of the program's history and its impact on recycling. It is a collection of facts and reflections from someone involved in the subject for more than 25 years, but is not in any way a statement of State policy or endorsed by CalRecycle.

### What is California's RPPC program?

The garbage barge *Mobro* famously floated for weeks in 1987 looking for a port to take New York City's garbage, highlighting the "landfill crisis" affecting the nation. By the early 1990s, California and other states had begun ramping up the first large scale government-sponsored recycling collection programs since World War II. Yet early collection success gave rise to another problem: Where does all this stuff go?

California was on the forefront of the modern recycling movement, but the burgeoning supply of recovered commodities – notably glass and plastic – was not in balance with a demand by manufacturers to use the materials to make new products. And so advocates proposed "demand-side" mechanisms to pull recovered materials through the economy and to fortify the emerging recycling markets.

Chief among these policy mechanisms was minimum recycled content. The concept was simple: require manufacturers (or their retail customers) to use recycled feedstock and the oversupply of targeted materials would be sucked up. Supply and demand would come into balance. California, by far the largest of a handful of states with beverage container deposits, and home to rapid growth in curbside collection programs prompted by its landmark Integrated Waste Management Act of 1989, attempted to balance its expanding supply of materials with several minimum-content laws. These included mandates for glass containers, fiberglass insulation, trash bags, and newspaper.

And plastic containers. The 1991 RPPC law was unique, however, because it offered producers not just recycled content, but several other ways to meet the statute's goal to "spur markets for plastic materials collected for recycling... and to achieve high recycling rates." Over many years since the law's inception, the specific requirements have been tweaked, re-defined and generally wrangled over. The

original law has been amended several times; regulations have been modified as well, most recently in 2013. CalRecycle's website describes the full details of the program at <https://www.calrecycle.ca.gov/Plastics/RPPC/> and provides links to the current statute and regulations.

Although the so-called "compliance options" have changed over the years, regulated manufacturers generally must prove their covered containers are:

- Source-reduced at least 10 percent by weight or by other means, or
- Made from 25 percent recycled plastic, or
- Refillable or reusable at least five times, or
- Recycled at a 45 percent rate (for specific products or resin types), or
- Part of a company's total use of California recycled material, which equals or exceeds the amount otherwise required to produce its RPPCs.

The current law provides more details and slight variations to these general options, as well as methods for averaging data across product lines. However, most regulated manufacturers choose the 25-percent recycled content option.

#### The main elements of the RPPC program today

If you are a regulated product manufacturer or supply containers to one, or if you are in the recycling business, you will want to familiarize yourself with the program specifics as they exist today. To navigate these nuances, consider the following:

- Definitions, e.g., What is a manufacturer? What is an RPPC?
- Who must comply?
- Which compliance options apply to you?
- How do you certify compliance?
- What type of recycled material counts for compliance?
- What are the consequences of non-compliance?

Selected answers to such questions follow below. (Caveat: This general discussion does not address all details; consult a lawyer for complete answers regarding compliance.)

*Containers subject to the law.* The legal definition of an RPPC is quite detailed, but generally refers to containers that

1. Are made entirely of plastic
2. Are "relatively inflexible"
3. Can hold between 8 ounces and 5 gallons
4. Are capable of at least one closure
5. Hold a product sold or offered for sale in California.

CalRecycle has an online tool and examples to help manufacturers determine if their containers are covered, at <https://www.calrecycle.ca.gov/Plastics/RPPC/SelfDetermin/>.

*Exemptions.* Broad classes of plastic containers are exempt from the law, including those containing products regulated by the U.S. Food and Drug Administration: food and baby formula, drugs, cosmetics, and medical devices. Likewise, federally regulated packages for toxic or hazardous products, or those used in shipping hazardous materials, are exempt. And containers “passing through” California on their way to other markets do not have to meet the requirements.

*Producers who must comply.* Mandates in the law generally fall on “product” manufacturers – companies or entities responsible for the product contained in an RPPC – not on container manufacturers directly (though container manufacturers must provide truthful data). Determining whether the law applies to a specific manufacturer or the precise party responsible for proving compliance is sometimes complicated; consult the law and regulations.

*Certification.* The current process for manufacturers to certify compliance gives them two years advance notice. It occurs in three phases: Registration, Precertification and Compliance Certification. Regulated companies self-certify, but CalRecycle may audit any submission.

- First, CalRecycle notifies manufacturers who appear to be selling products in RPPCs that they must register with the State; or, manufacturers may register on their own.
- Next, the agency randomly selects registered companies for Precertification. This phase gives manufacturers one year to make sure their regulated containers meet the legal requirements of the RPPC program.
- Finally, CalRecycle randomly selects companies in the Precertification pool for full Compliance Certification. This means those companies must provide data to CalRecycle demonstrating compliance during the calendar year of the year notified. Certifications must be submitted by April 1 of the following year.

*Qualifying recycled material.* Not all “recycled” material is eligible for calculating the percentage. The statute and regulations specify only *postconsumer* material counts toward the compliance thresholds, which generally is “material that would otherwise be destined for solid waste disposal, having completed its intended end-use and product life cycle.” (Once again, consult the law for the complete definition.)

*Penalties.* Violators of the RPPC program – including container manufacturers – can be subject to criminal and/or civil penalties up to \$100,000 in a year. The regulations detail penalty amounts for various levels of noncompliance, ranging from minor (e.g., late submittal of required data) to major (e.g., false or misleading submissions). In addition to penalties from CalRecycle, the Attorney General can prosecute suspected serious violators for fraud. CalRecycle publishes the names of companies that have been issued penalties; historically, some have been fined as much as \$50,000.

### Changes and challenges

California's RPPC program has grown in scope and complexity in its decades-long history. And markets have changed. The universe of products in RPPCs was relatively small in 1991 but now includes supplies for cleaning, car care, pets and art projects; products for the home, personal care, gardening, offices and construction; toys, sports equipment, and jewelry; tools, hardware... in short, most consumer products except those in the exempt categories.

Even some containers not formerly considered part of the program are now defined as RPPCs. Previously, a container had to be capable of "multiple closures" to be deemed an RPPC; since January 2013, the standard is "capable of at least one closure." So a caulking tube closed at the factory but sold without a little cap to re-seal it is now an RPPC; before, it was not covered.

Likewise, plastic buckets with metal handles used to be outside the program; now the handles are considered "incidental." The updated regulations also made it clear containers that can be collapsed when empty, like certain cartons, are RPPCs. And blister packs that fully enclose a product (including those "trapped" between paperboard) can be RPPCs even though blister packages with a non-plastic side are not.

Thus the present universe of California-defined RPPCs includes all manner of bottles, clamshells, tubes, tubs, rounds, cartons, buckets, and irregular shapes. All told, CalRecycle estimated the 2013 regulations brought into the program several hundred million additional containers representing perhaps 100 million pounds of additional postconsumer material.

As container definitions and markets changed, so too have program procedures. As the program phased in during the mid-1990s, manufacturers were not required to prove compliance if the statewide average recycling rate for RPPCs was 25 percent or higher. But in 1996, the State found the recycling rate to be about 23 percent, and so began the laborious process of surveying the industry and entering into compliance agreements with companies. Methodologies were tweaked, data were argued over, and few were happy.

A consultant hired by the California Integrated Waste Management Board (CIWMB, predecessor to CalRecycle) wrote in a 2003 report, "The RPPC Act provides an ineffective and fragmented approach to dealing with only a small portion of California's plastic waste stream." The report cited high costs for both the agency and industry to meet the law's mandates. By 2004, the Legislature repealed the requirement for the State to calculate both a special statewide PET recycling rate for RPPCs as well as an all-RPPC recycling rate.

With a statewide recycling rate threshold no longer an option for compliance, the CIWMB in the mid-2000s embarked on a program of requiring certifications from randomly selected product manufacturers. But the sheer number of regulated entities, the difficulty of obtaining compliance data, confusion over calculation methods, and the significant human resources still being devoted to compliance and enforcement prompted further reform. Additionally, proponents of demand-side policy pushed for more containers to be added to the program; critics argued the law was ineffective and it disregarded other environmental approaches.

And so in 2007, the CIWMB began what ultimately became a five-year effort to modify the regulations. Stakeholders from all sides attended informal workshops and then responded to formal rulemaking proposals. Finally approved by the Office of Administrative Law in 2012, the new rules took effect January 1, 2013. Notable changes to the program included:

- Expansion of the definition of RPPC, discussed above, including elimination of incidental attributes that had allowed nearly identical containers to escape regulation.
- A revised definition of “postconsumer.” Earlier iterations of the program created confusion about the range of recycled material allowed to count toward minimum-content compliance. Regulations now allow credit for specified post-industrial plastic if manufacturers can *prove* it had been previously disposed, such as obsolete or unsold packages that become feedstock for new RPPCs.
- A prohibition on “resin switching” – substituting a new resin to manufacture the same container previously made with a different one – as a method of compliance.
- The three-phase compliance certification process described above.
- The ability of companies flagged for compliance certification to request advisory opinions from CalRecycle.
- Provisions to allow companies to meet the intent of the law through a “good faith effort.”

### Does it work?

Thus a long and winding – some have said “tortuous” – path has led to today. Opinions abound regarding the efficacy, fairness and market impacts of the RPPC program. But like so many policy directives, teasing out its true economic and environmental effects is no easy matter. On its face such a study would be fraught with difficulty: How do you isolate the impact of one small program in a global economy, or determine what might have happened without the intervention? In any case, this author is not aware of any systematic, scientific review of the law.

What can be offered are a few educated observations about this three-decade foray into recycling policy and some thoughts about the future.

1. *The program is (still) too complicated.* The revised regulations lay out great detail about the documentation required to prove compliance, but the fact remains the program allows for numerous “compliance options,” each of which must be evaluated and enforced on its own merits. (The program even allows for “averaging” among options, giving rise to further number-crunching.)

A better tack might be to focus State and industry efforts on *one* approach, such as the minimum recycled content threshold. While encouraging reusability and source reduction is laudable, historically the lion’s share of companies has complied by using greater quantities of postconsumer material.

2. *Focusing on recycled content would bolster the domestic infrastructure* needed to address the current crisis in plastic recycling prompted by China's crackdown on scrap imports. Building up U.S. processing and use of postconsumer plastics can push us closer to the ideal of a circular economy, where recycled materials replace the need to continually extract raw resources from the earth.
3. *The pool of producers is too big.* Literally thousands of products fall under the RPPC umbrella. While this casts a larger net of containers caught – CalRecycle estimated about 4 billion in 2013 – it imposes a difficult enforcement burden for the State.

The experience of other minimum-content laws is instructive. California glass container manufacturers, for instance, must use 35 percent recycled glass in new bottles. The law arguably prompted greater use of recycled glass than states without such a mandate. But a key difference is the small number of producers required to comply: a handful of companies versus the hundreds or thousands in the RPPC program.

Past RPPC efforts have tried to focus less on the “little guy” and more on the big players. But perhaps more could be done to ensure the law addresses those markets where it is most needed: companies that produce the greatest number of containers, or that use resins with low recycling rates, or that introduce products in packages that lack a recovery infrastructure.

4. *Require third-party certification of recycled content.* Beyond the sheer number of regulated companies, another major challenge to enforcement – and to the overall effectiveness of the program – is verifying the use of recycled materials. CalRecycle relies on documents from producers and their suppliers to “prove” use of recovered feedstock in their RPPCs. But the current system has few checks to ensure these documents are accurate, or indeed, truthful. CalRecycle certainly does not have the resources to, say, conduct facility audits to ensure materials are what they purport to be on paper.

A better system would place the onus on industry to establish a third-party certification system for use of recycled plastics. A reputable certifier could create protocols for proving recycled content and license a logo or seal to demonstrate to CalRecycle and the public that usage claims are accurate. Existing organizations like Green Seal and the Association of Plastic Recyclers already have considerable expertise in this area.

Notably, however, the devil is in the details. Existing certifications for recycled content essentially rely on paper trails, e.g., submission of statements or affidavits from suppliers to indicate recycled feedstock has been used in product manufacturing. Actual plant audits are rare; and laboratory testing to distinguish recycled content from virgin material does not exist (although there is progress in this area). A viable certification program for RPPCs would need to address these challenges. (Note this topic has come up, with no resolution, in recent regulation development for California's single-use plastic bag law.)



5. *Recognize the RPPC program is one tool among many.* California has been a recycling leader for many years using a multi-pronged approach: the state has the nation's largest beverage container deposit program; it promotes both public and private recycled-content procurement; it provides numerous education programs; it has grant programs for curbside collection, greenhouse gas (GHG) reduction, and food waste; it requires carpet, paint and mattress recovery; and it has minimum-content mandates for several materials. Ideally these policies can reinforce each other. Requiring the 20+ billion beverage containers sold each year in California to have recycled content, for instance, could greatly bolster the market-demand effects of the RPPC program. (Indeed, Assembly Bill 792 in the California Legislature would do just that.)
6. *Marry the traditional recycling goals in the RPPC program to broader environmental initiatives like GHG reduction and ocean protection.* To some extent this is already happening: California's cap-and-trade program explicitly earmarks some proceeds for recycling programs, and the state Ocean Protection Council has called for greater recycling to combat the ever-growing amount of plastic debris entering our waterways.

But this gets tricky. Many have pointed out the single-attribute environmental goals of the 1990s – like recycled content legislation – can fail to account for the broad life cycle effects of packaging choices. Underpinning this argument is Life Cycle Analysis (LCA), which in theory accounts for the environmental effects of all inputs and outputs during a product's life, from raw material and energy extraction through final disposition.

While LCA, or more broadly "life-cycle thinking," has come a long way the past several decades, it is still an imprecise science, dependent on a great many data points and assumptions. Nevertheless, marrying some version of the RPPC approach with more encompassing environmental goals might strengthen the program.

7. *Address ever-changing packaging markets.* Some of the difficulties of the RPPC program arguably can be traced to its basis in 1990s-era market realities. At that time, the market share of traditional materials like glass and paper was much larger in many product categories. Plastics have changed all that; now the trend is toward ever more complex polymers, as rigid containers of all types give way to pouches and flexible packaging.

### A parting thought

This brief exploration of the history and challenges of California's Rigid Plastic Packaging Container program is designed to educate the reader and stimulate discussion – not to pose definitive solutions to difficult public policy choices. Packaging debates continue in California and globally, as the imperatives of climate change, resource depletion and ocean pollution occupy more and more of the public discourse.

However, having chickened out of definitive recommendations regarding the RPPC program, this author would like to toss one more small idea into the mix: Extended Producer Responsibility (EPR). Mandatory EPR policies require product producers to take fiscal and physical responsibility for

recovering materials they place into commerce. Most readers probably know Europe and other regions have had some form of mandated packaging EPR for many years. Yet the approach has been slow to come to the U.S.

California, however, has been examining this concept and others for packaging for quite some time. (See <https://www.calrecycle.ca.gov/epr> and <https://www.calrecycle.ca.gov/reducewaste/packaging>.) The Legislature already has enacted EPR laws for carpet, paint, mattresses, and now sharps and pharmaceuticals.

Should California's nearly 30-year experiment with RPPC legislation give way to a more comprehensive EPR approach? What do YOU think?