

# Foam PS Recycling Works at MRFs



Foam PS fed into grinder

## Spotlight: Burrtec Waste

### WHY RECYCLING EPS WORKS

— Burrtec Waste Industries, Inc. owns and operates a modern material recovery facility (MRF) in Fontana, CA. Burrtec's MRF accepts curbside collected foam polystyrene (Foam PS) from millions of residents, and its commercial customers, in 20 communities east

of Los Angeles in San Bernardino and Riverside counties.

Customers simply toss their used foam food service and protective packaging products into recycling bins, alongside their other plastic, glass and paper products, for pick up on their normal collection day. —



To watch Foam PS being recycled into new products, check out the video with Todd Sutton, also known as the Waste Sleuth, where he investigates how a simple foam cup gets recycled into a new picture frame.

< <http://youtu.be/UAYl8zrOQZo> >

### Curbside Recycling Foam PS Best Practices

Like all recyclables, MRFs want the Foam PS to be clean. Ask residents to wipe or rinse free of food, liquids, etc. prior to recycling.



#### *Steps for a successful and profitable MRF operation:*

- Remove Foam PS in the pre-sort area.
- Install chutes on the sorting line to feed a temporary storage area next to the grinder.
- Use a large capacity grinder for swift processing; this reduces labor time and costs. Grinding can be labor-intensive so it is important to maximize efficiency.
- Use an air delivery system to blow ground foam through tubes to a large canvas storage hopper attached to the top of a densifier (avoid melting material as this uses significant energy and emits undesirable odors).
- To reduce labor costs, incorporate a switch that automatically activates the densifier when the hopper is full.
- Purchase a densifier that requires minimal labor and with lower throughput than the grinder. This reduces equipment costs and machine operations should be largely labor-free.
- Allocate sufficient storage space for densified and palletized Foam PS to ensure the ability to generate full truckloads.
- Cover palletized material that is stored outside to prevent moisture and photodegradation.

*"When we added EPS to our collection scheme, it was unnecessary to add extra trucks or sorters, and the recyclable commodities we process at our MRF were not devalued."*

– Robert Rios, Regional Marketing Director, Burrtec Waste Industries, Inc., Fontana, CA



## HOW THEY DO IT

— Fontana, CA

Full curbside collection trucks dump their loads onto the receiving floor. From the floor the recyclables are pushed onto a conveyor belt that feeds the pre-sort line where sorters pull transport packaging and food service foam from the mixed recyclables and toss the material into hopper chutes. Since Foam PS is only 1% of the waste stream, **Burrtec uses existing labor to sort it!**

From the hopper chutes the Foam PS drops down to the in-feed conveyor that delivers the material to a grinder and then a blower, both of which are purposely over-sized in order to process the material fast and efficiently, which ultimately saves on processing labor costs. The grinder operates on an as needed basis (~1 hour per day). The foam is

ground into small pieces and then blown 100 feet through 10" tubes over to the densifier hopper (this saves labor). By using an over-sized hopper, the foam has a home. Once the hopper is full, a sensor turns on the densifier, which converts the ground foam into hydraulically compacted "logs."

Densification enables Burrtec to ship the same tonnage as other commodities: **40,000 pounds of previously expanded foam in a 48' trailer**, thus keeping transportation costs low.

Next the truckload quantities of densified foam are sold to domestic buyers, where the "logs" are ground and extruded into pellets. The pellets are sold to make new recycled content products. —

## FOAM PS RECYCLING RESOURCES:

- [www.PlasticFoodserviceFacts.com](http://www.PlasticFoodserviceFacts.com)

Facts, news, public policy issues and recycling resources on EPS foodservice products.

**American Chemistry Council, Plastic Foodservice Packaging Group**

- [www.RecycleFoam.org](http://www.RecycleFoam.org)

Information on Foam PS recycling process, equipment and system manufacturers.

**Foodservice Packaging Institute, Foam Recycling Coalition**

- [www.HomeForFoam.com](http://www.HomeForFoam.com)

Information for government, homes, businesses, and schools on how and where to recycle Foam PS.

**DART Container Corp.**

- [www.EPSpackaging.org](http://www.EPSpackaging.org)

Recycling tools and resources for original equipment manufacturers. Offers a Foam PS Sustainability Toolkit.

**EPS Industry Alliance Packaging**

- [www.EPSrecycling.org](http://www.EPSrecycling.org)

Thirty-one countries connected via Global Recycling Access network.

**International EPS Alliance: Asia, Europe, and North America**

- [www.FoamFacts.com](http://www.FoamFacts.com)

Foam PS recycling facts, links to articles and videos.

**DART Container Corp.**

- [www.Plastics.Ca](http://www.Plastics.Ca)

Canadian focused information, articles, news, program highlights, markets, videos.

**Canadian Plastics Industry Assoc.**

- [www.PlasticsRecycling.org](http://www.PlasticsRecycling.org)

Recycling information, webinars and videos.

**Association of Postconsumer Plastic Recyclers**