

# Waste Management

## Polystyrene recycling



Crown has established systems to recover expanded polystyrene (EPS) for recycling at its Melbourne complex. EPS is one of the least recycled plastics in Australia partly because of its low density and bulk. The challenge for Crown was to work out the Logistics for collecting the material on-site.

In May 2011, Crown engaged RED Group to improve the EPS recovery process. EPS at Crown is mostly polystyrene boxes from the food and beverage venues, but there is packaging from deliveries of computers and other equipment. A baler was trialed but because of significant OH&S issues Crown has reverted to using a cage system for EPS collection points.

The site has blue cages for EPS located adjacent to other bins at the designated waste collection points. Wall signage is used to designate the cage as being for EPS and contamination has not been an issue. The cleaning contractor takes the cages to the central loading dock where RED Group collects the material on a daily basis. RED Group estimates that around 15m<sup>3</sup> of EPS is collected from Crown every day.

Red Group partner with Victorian Polystyrene Recycling in Footscray for EPS processing. Polystyrene boxes are fed into a machine that crushes the boxes into smaller pieces. The crushed polystyrene is then melted at 1600°C.

Recycled polystyrene is then extruded into a cold water bath to solidify. The extruded blocks of plastic are then packed into containers and sold to manufacturers. At this stage the plastic is exported to China but some product has previously been sold locally. The recycled plastic is used for manufacturing picture frames, trims, and mouldings.

The EPS recycling is cost neutral for Crown compared to discarding the material to landfill, but the material recovered and recycled each year would fill about 2 Olympic size swimming pools.