

SUBMISSION TO

INQUIRY INTO THE MANAGEMENT
OF AUSTRALIA'S WASTE STREAMS.

by

VINYL CYCLE

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Prepared for:

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1. Introduction to Vinyl Cycle

Vinyl Cycle is a voluntary, industry initiative to increase the kerbside collection of PVC bottles across Australia and to recycle these bottles into long life applications such as pipe-fittings and floor coverings.

The project is managed by the industry association, the Vinyl Council of Australia on behalf of companies within the vinyl industry, including vinyl bottle manufacturers and end-users. It is a non-profit project funded by a majority of the Australian brand owners using vinyl bottles.

2. Background to Vinyl Cycle

The Vinyl Cycle PVC bottle recycling program is now in its 8th year of operation. It was launched by Environment Minister Senator Robert Hill on the 18th October 2000. At that time, only about 5% of the 6000tpa of Vinyl (commonly known as PVC) bottles produced in Australia were being collected at the kerbside, and none of what were being collected were being recycled in Australia. Today, 94% of all households in Councils with populations of 10,000 or more, have access to recycling services which include the collection of PVC bottles. More than 50% of the PVC bottles produced are recovered at Materials Recovery Facilities (MRF's) throughout Australia. This means that in just over 7 years, around 200 million PVC bottles have been diverted from landfill and the initial target announced that day in October 2000 of 25% recovery, has been surpassed.

These achievements have been the result of an active educational campaign over many years with Councils throughout Australia, encouraging them to accept PVC bottles at the kerbside and with the Materials Recovery Facilities to recover the PVC bottles.

Vinyl Cycles principal aim however is to source and reprocess as many of these PVC bottles as possible themselves, in order that they be recycled within Australia. They are washed, granulated and then ground using a special cryogenic technology and marketed for use in long term applications such as vinyl flooring (typically for commercial applications such as supermarkets) and for pipe fittings. At the moment only around 10% of the PVC bottles recovered via the MRF's are able to be sourced by Vinyl Cycle. The rest are being sent offshore as part of a mixed plastic product which is actively sourced by countries such as China. Vinyl Cycle is extremely keen to increase the volume of PVC bottles made available to them by the MRF's as the demand for the end product exceeds the supply.

3. PVC Bottles

Vinyl (PVC) bottles are a small but important niche market for packaging of food and beverages where specific packaging qualities are required such as clarity, large volume and often having a built-in handle. New products on the supermarket shelves include Sun Rice “Pour and Store” bottles for rice, and CSR “Pour and Store” for sugar. Cottees cordial, and a range of other cordials, juice honey and edible oils are also packaged in clear PVC bottles. PVC bottles are typically not used as a single-use beverage drink container.

4. Inquiry into the Management of Australia’s Waste Streams

4.1 PVC Bottles and Waste Production

New product development in PVC bottles has trended towards the use of large volume, reusable bottles such as recently launched Sunrice and CSR “pour and store” designs. These are aimed for re-use applications as a storage container. Similarly the Cottees cordial bottle which accounts for a significant proportion of all PVC bottles is designed for re-use as a dispenser of diluted cordial drink in the home. Designs such as these minimize PVC as a single-use throw away container ending up in the waste stream.

4.2 Strategies to reduce the presence of PVC in waste streams

As detailed previously, Vinyl Cycle has carried out an active education program with Councils across Australia regarding the collection of PVC bottles at the kerbside. As a result of this and efforts from other quarters there has been significant increases in the number of councils accepting PVC at the kerbside and therefore the volume of PVC bottles diverted from the waste stream has substantially increased over the last 7 years. Approximately 94% of all councils with populations greater than 10,000 now accept PVC bottles in their kerbside recycling collection. This is an increase from around 50% 7 years ago. Work is currently being undertaken to bring some of the larger WA Councils who are yet to include PVC collection, on board

4.3 PVC Bottle recycling in Australia

The focus by Vinyl Cycle now rests on increasing the recycling level of PVC bottles within Australia. Currently 90% of PVC bottles which pass through a MRF end up in an unsorted, mixed plastics stream. Most of this is sold offshore, typically to China as a high demand resource for those countries. While happy that the PVC bottles are ultimately being recycled, it is the preference of the Australian vinyl bottle industry, that bottles are recycled here in Australia. This is the function of the Vinyl Cycle project.

Vinyl Cycle purchases baled PVC bottles and their contractor in Geelong, Victoria converts the bottles to a powder which is sold as a replacement for virgin PVC resin – therefore saving resources used in the production of virgin resin. The process involves the bottles being granulated and then washed which removes much of the contamination such as dirt, paper labels and polyolefin bottles such as PE and HDPE bottles. The granulate is ground to a fine

powder using a special cryogenic process which also allows the further removal of PET contamination. The end product is used in flooring and pipe fittings, both of which have an extremely long end-of-life term. The demand for the PVC recyclate in these products is very strong and supply cannot currently meet this demand.

4.4 Drink Container Recycling Bill 2008

PVC bottles are not typically used for drink containers and as such the Vinyl Cycle has in general, a neutral position regarding proposed Drink Container Recycling Bill 2008. The beverage container stewardship plan as proposed in the Bill includes the introduction of a beverage container deposit along the lines of the existing Container Deposit Legislation (CDL) already in place in South Australia. The Vinyl Cycles neutral position is therefore underpinned by the following assumptions:

1. That the introduction of CDL does not adversely affect kerbside collections through reduced frequency of collections or worse case, cancellation of collection services as a result of the majority of containers being returned for refund at point of sale or other collection points.
2. That the introduction of CDL does not negatively impact on PVC sorting as a result of lower volumes passing through MRF's
3. That the current system of plastic bottle sorting, including PVC sorting is preserved.

It should be noted that in South Australia where a CDL scheme has been in place for some 30 years, sorted PVC bottles have not been obtainable by the Vinyl Cycle, and antidotal evidence suggests that more PVC bottles end up in landfill in that state compared to those states not yet running CDL schemes. This is due to collection points and sorting operations in SA being set up only for refundable bottles and those containers which do not carry deposits (including all PVC bottles) are left in the waste stream or exported as mixed plastics.

In summary, we believe that while the introduction of CDL has the potential to help the away from home waste situation, it may not help improve the situation for PVC recycling and may indeed be detrimental to it. There may be similar disadvantages for other non-drink containers / plastics and urge that consideration be made to any possible downsides for the non-drink container sector before a CDL type scheme were to be introduced.

5. Conclusion

Vinyl Cycle has been proactively supporting and participating in the recycling of PVC bottles since 2001. We believe that it is an effective strategy in reducing PVC waste in landfill, and although there are competing pressures for the resource to be exported offshore, the project is committed to expanding the recycling of PVC bottles within Australia in order to replace virgin raw materials used in Australian manufacture of PVC goods. To achieve this it is necessary to expand on current levels of sorting of ex-kerbside materials by the MRF's and there appears to be some risk that the introduction of a CDL-based scheme would negatively impact on this outcome.