I F THOMAS & ASSOCIATES PTY LTD

SUBMISSION

to the

PRODUCTIVITY COMMISSION

on

WASTE MANAGEMENT

presented for and on behalf of the

AUSTRALASIAN CONTAINER RECONDITIONIONERS' ASSOCIATION

4th August 2006

I F Thomas & Associates Pty Ltd

CONTENTS

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Enquiry into waste generation and resource efficiency
Australian Government Productivity Commission
Locked Bag 2

Collins Street East
Melbourne 8003

Attention : Ms Delwyn Lanning

Dear Ms Lanning,

Submission to the draft Productivity Commission report

on

WASTE MANAGEMENT

presented for and on behalf of the

AUSTRALASIAN CONTAINER RECONDITIONERS' ASSOCIATION

Further to your agreement to permit a late submission on behalf of the Australasian Container Reconditioners` Association (ACRA) for which we thank you, we are pleased to present our views here-following.

We regret having been unable to engage in the processes which led to the first report and in having been unable to attend at one of the public hearings recently held. We believe we will be able to contribute further in the future.

1.0 The business of ACRA members

Members of ACRA are principally engaged in the process of reconditioning of used 205L steel containers (drums) and to a lesser extent, 205L plastic (Mauser) drums and 1000L IBCs (Intermediate Bulk Containers).

2.0 Recycling of smaller than 205L containers

ACRA believes that with appropriate initiatives by regulators, it will become viable for its members to process smaller containers such as 100L, 60L and even 20L steel drums and to a lesser extent, similarly sized plastic containers. In so suggesting ACRA believes that recycling of these smaller containers particularly of the larger, steel containers, will be beneficial to the economy and to the environment, in addition to any measures which might be taken to further stimulate the processing of used 205L drums.

3.0 Regulatory initiatives to increase recycling

We note with interest and without contention, the view in the draft report to the effect that enforcement measures such as Container Deposit Legislation and Landfill Levies are generally to be discouraged. We believe that containers which are

the subject of reconditioning by members of this association are somewhat of a special case and consequently seek to cause you to consider them differently.

Recycling of these containers as opposed to landfilling, either washed and empty or containing low-volume waste residues we believe, is an inefficient use of landfill resources even though as the report indicates these are not as scarce as is commonly understood. ACRA supports the disposal of full drums in landfill subject to the usual requirements that the contents are acceptable to the facility. ACRA also presently acknowledges the passage of full or partly filled, small containers such as 4L or 10L resin and paint containers, into landfills. As reconditioning activity becomes economically feasible for smaller containers, this view may vary.

Presently, 205L drums are considered inappropriate for presentation to landfills both because their volume is large and because existing processes of reconditioning are capable of processing essentially all used drums.

4.0 The Franklin Report

The Association has to date, not commissioned a study in Australia of the efficiency of reconditioning as opposed to use of single-trip new containers but is pleased to cite such a study performed by *Franklin Associates* for the *International Confederation of Container Reconditioners* of which ACRA is a member. The study was completed in *January 1999* and a copy is appended hereto for your consideration. It is entitled -

Lifecycle inventory of single-trip and multi-trip steel drum systems in the US, Europe and Japan

The study was extensive and necessarily incorporated a number of assumptions all of which are documented. It concludes in brief as follows -

- *Total energy requirements for single-trip drums are higher than for corresponding multi-trip drums*
- *The energy for transportation of drums accounts for a significant portion of total energy, ranging from 10 to 36% of total energy for multi-trip systems and from 8 to 12% for single-trip systems*
- *Solid wastes generated for single-trip drums are generally higher than for corresponding multi-trip drums*
- *Atmospheric and waterborne emissions for single-trip drums are generally higher than for corresponding multi-trip drums*
- *Net costs for single-use drums are higher than those for multi-trip drums.*

Consequently, there is economic and environmental logic in supporting the drum recycling industry ahead of permitting propagation of single-trip drums. This is additional to the logic of recycling rather than disposing of current drums which are not single-trip drums ie which are more substantially constructed and intended for use and re-use.

5.0 Re-introduction of a deposit scheme for steel 205L drums

ACRA supports vigorously, the re-introduction of a deposit scheme for used containers, particularly for drums and IBCs. Such a scheme used to exist in the past and was run by drum buyers that is for example, the oil companies and the chemical companies. This scheme provided these companies with a substantial

body of capital not otherwise available and achieved the aim of looking after the container and ensuring maximum possible recycling. The scheme is understood however, to have been open to a degree of adverse manipulation. A modern scheme with potential for use of bar-codes and computerised records would in ACRA's view, not be fraught with dishonesty and would again, ensure maximum possible recycling if correctly set up.

Under previous deposit schemes, the practice of drum reconditioning was economically viable and caused drums to be recycled typically, up to 10 times before being disposed of as scrap steel. It meant that drums were taken to central locations, held in significant numbers and then shipped-to or collected-by reconditioners. As with other Container Deposit Legislation (CDL) addressed in the draft report, wasted or dumped containers were also largely found, recovered and recycled by entrepreneurs whose living was as drum collectors (colloquially known as drummies). Currently, most drum reconditioners operate marginally and are expected often to travel long distances to collect commonly less than 10 drums and this is clearly not sustainable.

6.0 Containers 'incapable' of being recycled

ACRA advises that the proportion of drums which are absolutely incapable of beng recycled by its members, is extremely low. Theoretically, all drums should be recycled, passed to the tallow trade *(which consumes low-grade drums for transport of tallow principally to China)* or disposed of as scrap metal. ACRA members are variously able to caustic wash, kerosene wash, internally shot-blast and incinerate drums to ensure that all residues are removed.

Equally, members are able to cut-off the tops of closed-head drums containing hardened contents so that normal removal processes can be applied. This is followed by the drum being reformed into an open-head drum with a new lid, seal and ring fitted. Instances such as hardened resins and hardened bitumen would mostly present an easy task to a competent reconditioner. The very small number of `intractable' drums would in any event be separated out by the reconditioner and disposed of lawfully to landfill. All that is required here, is that these drums be presented to a reconditioner as empty as is practicable.

7.0 Disposal via steel recyclers

Disposing of wastes which are chemical compounds as opposed to wastes which are chemical elements is relatively straightforward for example, by the process of appropriately controlled high-temperature incineration. Steel recycling furnaces are understood to operate at between 1500°C and 2000°C such that with appropriate controls and licencing, they may provide a lawful means of disposal of unprocessed drums which are not capable of remaining in the recycle loop. This is happening presently in some cases, without appropriate controls in place. That is, drums containing wastes are recycled as scrap steel. and any contents are being incinerated. Neither in many instances are such drums and contents stored or handled in the way required by licenced premises.

ACRA therefore suggests that to permit lawful disposal of drums which cannot be fully cleaned, environmental agencies be encouraged to licence scrap steel companies to process drums containing waste residues. Together with existing requirements that drums which can be cleaned before disposal, are cleaned, this would provide a non-landfill route for disposal of all steel drums.

8.0 The value of a recycled drum

ACRA submits that the reason that drums are not recycled sufficiently is because they are presently under valued. Current values are at best nothing and at worst, negative. Previously, drums had a significant positive monetary value. Steps which lead to a re-instatement of this position will again cause recycling to occur at satisfactory levels.

9.0 Single-trip drums

Thinner and thinner steel drums are entering the market place as single-trip drums. These are questionably thin and not capable of being recycled. ACRA considers these containers to be more prone to damage, leakage and spillage than conventional, thicker-walled containers.

Furthermore, their manufacturers are not supporting their clients with respect to drum return or disposal. Previously, manufacturers collected returned drums so that reconditioners could then pick-up in economic quantities. Now, the manufacturer simply advises users to call a reconditioner. The user then. expects a handful of drums to be picked up, often distant from major cities and also expects to be paid for them.

Manufacturers will only ever do what their customers appear to want. If thin, single-trip drums are cheaper and if they fool customers into believing that 'new' is better than recycled, the trend will continue - perhaps only until an accident occurs because of the thinness.

ACRA believes it is necessary for competent authorities in each state to define minimum thicknesses independently of manufacturers. This will avoid damage and loss of contents and will also encourage recycling in lieu of the less efficient single-trip containers *(Franklin report refers).*

10.0 Recycling in the early days

Experienced second-generation drum reconditioners can recall times when the number of new drums produced had a workable relationship to the number of recycled drums used. ACRA submits that authorities should consider introducing a 60 / 40 rule in conjunction with a requirement to produce drums of appropriate thickness. Here, for 40% use of reconditioned drums, 60% of new drums of appropriate thicknesses would be permitted to be produced. This would benefit the recycler and the environment by permitting viable recycling and would also assist manufacturers by permitting more, appropriately thick drums to be produced. Currently this ratio is approximately 50 / 50.

11.0 The ACRA ‘emptying’ initiative

ACRA has recently launched a program which advertises the need to properly empty all product from a container before recycling it. This is in the form of a stiff, A3-sized, coloured advertisement. A black-and-white copy of this is attached hereto. It shows a closed-head drum

The general standard of reconditioned drums is rising dramatically. Member

companies are getting better at re-shaping drums, at dedenting and rechiming. It is usual nowadays for closed-head drums which have had new rims curled and new lids fitted, to be unrecognisable from new, closed-head drums other than the accompanying slight loss in height. Member companies are increasingly sand, grit or shot-blasting, drum exteriors, painting in as-good-as-original a manner and screen-printing of client logos again, in a manner not distinguishable from new. Rust removal and future rust prevention measures for closed-head drums are also now commonplace.

As well, these higher standards of performance are being applied to drums which are intended to be re-used and which are therefore thick enough to contain the goods for which they are designed to convey.

So-called single-trip drums will be recycled by less scrupulous operators and will even be used to convey contents which are required to be kept in thicker drums. Those ACRA member companies which have experience of attempting to recycle single-trip drums for permitted 'lesser' uses, have found that they are not easy to process, require completely new machine settings, disrupt production of other drums and damage easily in the reconditioning process.

The support of the Productivity Commission is sought in causing thin, single-trip drums to be outlawed or otherwise controlled.

16.0 ACRA's view in summary

ACRA maintains that no drum should enter landfill. Rather, by involving its member companies there are only three legitimate fates for cleaned, triple-rinsed or incinerated drums, namely :-

- *recycling*
- *the tallow industry, or*
- *the metal recyclers*

In all such cases, competent emptying and cleaning or incinerating is the first step. ACRA maintains that there is no place for steel 205L drums, 205L plastic drums and 1000L IBCs with prescribed waste residues, other than the reconditioning industry. Reconditioners are the only organisations capable of defining which of the three foregoing fates any particular container should follow.

Consequently ACRA urges competent authorities and governments to

- *Legislate to prohibit or limit thin, non-returnable drums*
- *Legislate to require that drums be recycled to the full extent for which they are capable*
- *Consider a deposit (levy) scheme on used drums*
- *Consider a charge on drums going to landfill*
- *Consider schemes like the ACRA scheme to encourage waste generators to completely empty containers of their contents ie to reduce waste and loss at source*

- *Take steps to prevent non-hazardous goods becoming prescribed waste*

- *Take steps to prevent uncontaminated outer containers from becoming prescribed waste*

Yours sincerely,
IF THOMAS S& ASSOCIATES PTY LTD

Ian F Thomas
PRINCIPAL

for and on behalf of the
AUSTRALASIAN CONTAINER RECONDITIONERS' ASSOCIATION

17.0 Appended items

- *1999 Franklin Report copy*

- *ACRA `Proper Drum Emptying' poster*