



WMAA news

Newsletter of the Waste Management Association of Australia

ABN 71 836 963 435

Spring 2003

 Congress
ISWA 2003

MELBOURNE, AUSTRALIA
9 - 13th November 2003

**Extended Producer
Responsibility
& Beyond**

**Natural New
Approach To
An Old Problem**

**Japanese Food
Waste Recycling Up**



To Extended Producer Responsibility and Beyond

Extended Producer Responsibility gets applied to different materials and products in America, Australia, Japan and the European Union, writes **Russ Martin***



1800 Australian retailers are participating in a mobile phone recycling project

Extended producer responsibility (EPR) is not quite what it used to be. When I entered the field of product stewardship in 1990, the pending implementation of Germany's packaging legislation had everyone's attention as the next big step in holding manufacturers responsible for their product's environmental impacts, most noticeably waste. Prior to that, the prime example of EPR was container deposit legislation (CDL).

Although the packaging industry still receives more than its fair share of attention, a much broader range of businesses are now being held more accountable for actual and perceived social, economic and environmental impacts of their products.

Key EPR and product stewardship drivers include:

- Consumers and industries are better informed about the environmental impacts of products, with consumer influence increasing as a result.
- The environment has increased in prominence.
- Politicians are more actively involved in the debate.
- The push for stronger corporate governance recently has provided extra momentum to environmental activists.
- Some corporations have seen market advantages from improved environmental performance, with others now following.

Producers now have more responsibility, but more options as well. The range of approaches available

to demonstrate product stewardship is much more extensive, and the boundaries between product stewardship and EPR are less clear.

It is also obvious that too much attention has focused on EPR as an end in itself, rather than as one component of how we get to where we want to be; that is, reduced environmental impact across the full life-cycle of products.

By understanding these drivers and experience to date, we can lay the groundwork for how best to move forward. Future articles will examine individual Australian product stewardship approaches in more detail.

Overview Of International EPR Programs

EPR programs overseas are too numerous for a comprehensive examination here, but an overview can help provide some context. There are several clear trends emerging:

America: While the US has not generally been viewed as a leader in EPR, several state programs have shown significant innovation recently. In April 2002, Maine passed the nation's first law to mandate producer responsibility to remove mercury from vehicle components such as switches for inside lighting and anti-lock braking systems. Manufacturers must also label the vehicles with a list of all mercury-added products that may be in the vehicle.

According to the US EPA, 33 states have banned tyres from landfills and over

30 states have established programs to fund proper tyre disposal, management and even research and development into tyre recycling through disposal fees charged when the tyres are sold.

Industry is also demonstrating leadership. A major manufacturer of bath and beauty products has announced plans to switch to PET bottles and phase out their use of PVC bottles by the end of 2003, due to environmental concerns about PVC production and disposal. Texas Instruments has reduced their transit packaging budget by US\$8 million per year for semiconductors through a variety of source reduction and recycling efforts, as well as a switch to reusable packaging systems.

Although progress is slower than expected, a multi-stakeholder group called the National Electronics Product Stewardship Initiative (NEPSI) has been committed to develop a consistent national plan for implementing and funding the recovery of electronics, while reducing toxicity and increasing the use of recycled content.

The European Union: The European Union - and individual European countries - have been active in applying

EPR to a broad range of products. For example, vehicle manufacturers are now subject to mandatory takeback and recycling programs for the vehicles they put on the market. This effort has resulted in part from individual manufacturers designing their vehicles to be easier and less costly to disassemble and recycle.

The European Commission has agreed on a ban on mercury and other hazardous substances in electrical and electronic components to take effect by July, 2006. The Commission has also established a series of mandates for producers of electrical and electronic equipment to fund the collection, treatment, recovery and environmentally sound disposal of their products from households and other organisations such as businesses. The requirements include product redesign, takeback systems and product recovery targets.

In Europe, debate has shifted away from EPR as an end in itself and more

A much broader range of businesses are now being held more accountable for actual and perceived social, economic and environmental impacts of their products.

toward Integrated Product Policy (IPP), which is intended to reduce the environmental impacts of products across their life cycle, rather than focus just on producers. Under IPP, a range of instruments are targeted to the various stakeholders (such as producers, consumers and governments) in an attempt to send the right signals about environmental performance to each stakeholder.

Japan: Under Japan's Specified Home Appliance Recycling (SHAR) Law, producers of TVs, refrigerators, washing machines and air conditioners are required to take back and reuse or recycle the products they manufacture. Recycling rates for each of the product types range between 50-60%.

Program funding for SHAR is provided by an upfront fee to cover collection, transport and recycling costs. Japanese producers are actively using product redesign to promote disassembly and recycling, thus enabling them to pass on lower end-of-life fees to consumers and maintain competitive advantage.

Japanese producers are also tapping into the potential market advantages of "green" products within Japan and world markets by transitioning to lead-free soldering in their electronics. Japanese electronics producers are reportedly well ahead of the Europe and the US in developing such green technologies. While European legislation is usually a driver for such actions, this strong push is due to

Japanese strategic marketing and consumer demand.

Canada: One Canadian example shows how EPR schemes can focus too much on funding, to the detriment of environmental priorities. In Ontario, industry is being required to fund half of the cost of kerbside recycling through an Industry Funding Organisation (IFO) called Stewardship Ontario.

While the Ontario approach seems simple enough, in many ways it gives the wrong signals:

- Extensive debate has focused on the actual costs of local government recycling, without seeking to minimise those costs.
- Products with higher recovery rates or recycled content often have to pay more in fees than competitors that are not as responsible for their products.
- Stewardship Ontario serves mainly as a funding vehicle, rather than actually focusing on recovery.

British Columbia (BC) has implemented a range of product stewardship and EPR programs, addressing products such as beverage containers, paint and tyres. BC's lead acid battery program, initiated in 1991, involves a C\$5 tax on all new sales of batteries over 2 kg. Virtually 100 percent of lead-acid batteries sold in the province are recovered under the program.

→
Story continues on page 10

ARCTEC ENGINEERING

Manufacturers of Commercial Waste and Recycling Bins

We Manufacture to your Specifications

02 4421 3822

10 Vicia Way Bomaderry NSW 2541 | www.arctec.com.au

MANUFACTURERS FOR SHOALHAVEN RECYCLING

To Extended Producer Responsibility and Beyond

Story continued from page 9

Japanese car makers are now legally obliged to recycle car components

EPR in Australia

Australia's experience with EPR extends back to the introduction of CDL in the mid-70's in South Australia. In the mid-90's, the Commonwealth Government negotiated Industry Waste Reduction Agreements (IWRAs) across a range of products.

Then, beginning in 1995, New South Wales (NSW) negotiated or mandated Industry Waste Reduction Plans (IWRPs) for beer and soft drinks, dairy and tyres. Debate over CDL and EPR then led to the development of the National Packaging Covenant (NPC) as a quasi-voluntary approach emphasising shared responsibility across the packaging supply chain.

While most states have passed enabling legislation that could require EPR for businesses that do not satisfy their NPC obligations, NSW has taken the next step towards EPR across a range of products. Victoria and other stakeholders are pursuing more collaborative approaches.

New South Wales: In New South Wales, several industries have already been put on notice under the Waste Avoidance & Resource Recovery Act 2001 that they need to clearly demonstrate their commitment to product stewardship and EPR. If they don't, they risk being subject to serious legislative measures.

Although NSW has recognised that there are some existing recovery programs in place, the message is clearly that voluntary approaches may not be enough. The message in NSW that is less clear is how to demonstrate that responsibility, due to vague and often conflicting assessment criteria. You will know you've been put 'on notice' about a greater need to demonstrate responsibility, but not how to get 'off notice'.

One of the voluntary programs included on the NSW EPA's EPR Priority Statement is the mobile phone industry's voluntary program, which

started as a trial in 1999. The NSW EPA recognises that although mobile phone components are a very small proportion of waste that is landfilled, their toxicity is a concern.

Victoria: EPA Victoria is establishing voluntary sustainability covenants with businesses to explore commercial opportunities by reducing the environmental impact of products and services. According to EPA Victoria, the world's first voluntary sustainability covenant has been signed with VicSuper to promote sustainability in investment decision making.

Nationally: The Australian Mobile Telecommunications Association and Planet Ark have launched a national campaign to recover 1 million mobile phones. There are 1800 retailers participating in the program now, but significantly improved recovery will be necessary to head off mandatory legislation.

C4ES is also working with several industry sectors and state governments to investigate and trial regional and national product stewardship schemes.

Advance Recycling Fees are common in most of the recent US EPR proposals.

EPR Instruments and Tools

Where EPR is being considered, the incentives, alternatives, tools and information available can have a huge impact on likely success. EPR is theoretically aimed at reducing environmental impacts of products, however:

- Impacts and risks may be uncertain.



- Impacts can change over time as products and consumer demands change.

- Trade-offs are often involved. Approaches that conserve energy may be water intensive, and vice versa. Policy issues that should be taken into account when considering EPR and other product stewardship schemes include:

- What is it that the program is supposed to accomplish?
- Is responsibility targeted at producers or shared?
- What are the impacts on existing programs?
- Are stakeholders better off under the proposed actions?
- Are assessment criteria transparent and clearly defined?

Ultimately, consumers/taxpayers pay for everything. Therefore, cost-effectiveness is important, whether for industry or Government. Care must also be taken to minimise distortions on trade and competition.

Effective EPR instruments need to be specifically targeted and be able to adapt as environmental impacts change. With these parameters in mind, it's worth examining some of the tools that are operating under the EPR banner around the world:

Advance Disposal Fees: Advance Disposal Fees (ADFs), or Advance Recycling Fees (ARFs), are product-specific levies designed to ensure self-funding environmental management for products. ADFs have been applied to a broad range of products from beverage containers to tyres and lead acid batteries.

→ Story continues on page 12

To Extended Producer Responsibility and Beyond

Story continued from page 11

In Australia, collection and recycling of empty, non-returnable agricultural and veterinary chemical containers is funded through the DrumMuster program, an ADF of 4 cents per L or kg of agvet chemicals. The drums can be returned at no extra cost to council collection centres funded by the ADF. Contractors then process the materials and recycle through existing end users.

Florida stimulated demand for recovered materials by applying an ADF to cans, bottles, jars and beverage containers with exemptions for achieving recycling and recovery targets. The fee was a simple one or two cents per containers; the key factor was whether containers were subject to the fee or not. Even with these exemptions for achieving recovery targets, the Florida ADF raised US\$64 million (around A\$100 million) in two years for various environmental programs, including recycling market development, improved landfill management in smaller councils and helping rural areas transition from septic tanks to sewer systems.

ADFs and ARFs are common in most of the recent US legislative proposals, especially for those relating to managing electronics waste.

Integrated Product Policy: The European move toward Integrated Product Policy (IPP) signals a strong shift away from seeing EPR as an end in itself, and more as one of a suite of available options. IPP recognises that everyone involved with a product's life-cycle has a role to play in reducing environmental impacts, and tools such as EPR, economic instruments, eco-labeling and design for environment (DfE) need to be used in ways that are appropriate to the product being addressed.

The European Commission argue that the use of IPP will provide a more coherent framework for the use of many existing environment-related product policies, thereby helping industries improve their performance while encouraging consumers to use

green products.

Licensing Fees: The use of licensing fees to fund waste management and recycling programs is exemplified by the Green Dot, which is used in at least 19 European countries to demonstrate product funding commitments for collection, sorting and recycling of packaging.

Under programs such as the Green Dot, license fees paid by manufacturers and fillers are directed to industry-driven recovery as demonstration of participation in approved product recovery schemes. To assign responsibility for environmental impacts, license fees per product vary, often by material type and volume or weight.

Efforts by some producers to avoid paying the fee can cause distortions in reported recovery figures. For example, in Germany where the Green Dot covers over 19,000 licensees, the program's recovery rate is reportedly 103%. This is because actual amounts recovered are reported against the amounts produced by licensees, not against total production.

Design for Environment: Under DfE, product design is intended to improve a product's environmental performance by reducing material intensity/toxicity, increasing water and

energy efficiency, and/or improving a product's ability to be recovered.

DfE often requires innovative responses to address legal and technical constraints while improving performance. For example, flame retardants are used in plastics as a legal requirement to meet the Australian Standards for manufacturers and importers of electrical goods. However, these fire retardants can result in plastics reprocessors not wanting to handle most of the plastics that could otherwise be recovered. This is likely to be one of the first waste avoidance issues to be addressed by the NSW Waste Avoidance Working Group of the WMAA.

Industry Funding Organisations: IFOs, as their name suggests, focus almost exclusively on funding programs required under product stewardship or EPR schemes. While IFOs are instrumental in this capacity, their use tends to shift attention away from solving the problem the scheme is intended to address, namely the environment. Ontario's IFO for kerbside recycling, discussed previously, is a prime example.

Deposit refund systems. Most early takeback programs focused on voluntary deposits on beverage containers in order to ensure their return and reuse. Eventually, these



Australia's DrumMuster program is based on an Advanced Disposal Fee

programs were either phased out or became mandatory as CDL. Most CDL programs were targeted at reducing beverage container litter, although recent attempts to introduce CDL have focused more its role in product stewardship and EPR.

In the Florida legislative process, we used to call CDL proposals 'tulip bills', as they'd pop up in the Spring, demand your attention, and then fade away, certain to come back up next year. While the CDL debate will likely

continue, it is worth considering whether this ongoing debate diverts attention away from implementation of more effective approaches.

EPR – Keep it or Take it Back?

What can we learn from overseas and in Australia about the appropriate role of EPR? Care should be taken to ensure that where EPR is used, it minimises environmental impacts, is



Efficiently conserving natural resources should be the focus of all environmental regulation

appropriate to the product in question, and is funded effectively. The process for implementing EPR should also be transparent and involve all relevant stakeholders. However, many of the more recent approaches being implemented have de-emphasised EPR or producer takeback per se in favour of shared

While European legislation is usually a driver for action, this strong push is due to Japanese strategic marketing.

responsibility and a more comprehensive approach to reduce environmental impacts across a product's full life-cycle.

* Russ Martin (russ@c4es.com.au) is Manager Economic & Environmental Policy for C4ES Pty Ltd, an Australian environmental consultancy specialising in product stewardship and natural resources management (www.c4es.com.au). Activities with C4ES include government relations, public policy analysis and product stewardship in packaging, wool and other industries.

C4ES is developing a profile of case studies on product stewardship and EPR. Please feel free to forward relevant examples to www.c4es.com.au.

New liquid waste treatment facility for Perth

The Water Corporation is building a new liquid waste treatment facility at its Woodman Point Wastewater Treatment Plant in Perth that will be ready for business in the New Year.

The plant will be licensed to accept septage, grease trap waste, food processing waste, inorganic waste such as neutral salts, silica slurry and low strength wastewater such as pond water and cooling tower water.

If you are interested in taking advantage of this new service, please contact Gary Watson on 9420 3721 or gary.watson@watercorporation.com.au for more details.

