



OFFICE OF
REGULATION REVIEW
INDUSTRY COMMISSION

Response to ANZEC's draft report
on waste lubricating oil and used tyres



SUBMISSION
DECEMBER 1991

INTRODUCTION

Community concerns about the environment are increasing, and governments at all levels are keen to respond in a tangible way.

The Australian and New Zealand Environment Council (ANZEC) established a Task Force in June 1990 to "...prepare strategies for the collection, re-use and recycling of lubricating oils and motor vehicle tyres". The Task Force has released a draft report (ANZEC 1991), and is seeking public comment.

The Office of Regulation Review (ORR)— which is part of the Office of the Industry Commission — is concerned to see that environmental values are properly incorporated into government policy and private decision making. The ORR's contribution to this debate is aimed at ensuring that any policy proposals advanced by ANZEC are well based and consistent with the Federal Government's regulation review guidelines for assessing new regulations¹.

The ORR considers, however, that the Task Force's proposals fail to achieve the standard of analysis required in these guidelines. While the report provides a reasonably comprehensive discussion of the market and recycling techniques for waste lubricating oil and used tyres, it fails to specify the objectives of, or rationale for, the policies it proposes. Nor does it provide any indication of the likely benefits and costs of its proposals or compare them with alternative mechanisms for achieving recycling and re-use.

The Industry Commission has recently released a number of papers and reports dealing with aspects of environmental policy making. It produced a two-volume report on *Recycling* (IC 1991a) and released a paper commenting on DASETT's *Draft National Waste Minimisation and Recycling Strategy* (IC 1991b). It also discussed aspects of environmental policy in its latest *Annual Report* (IC 1991c). The ORR has had input into these documents.

In this response, the ORR reiterates some principles for devising environmental policies for waste disposal and recycling activities, and assesses the individual proposals in the Task Force's report.

¹ The Cabinet's regulation review guidelines, which are administered by the ORR, require information and analysis on the need for, and effects of, changes in existing regulatory policies and new policy proposals. Under the Government's policy of 'minimum effective regulation', regulatory intervention in the economy will be supported only where a well defined problem exists; where other means of solution, such as private or non-regulatory mechanisms, are inappropriate; and where expected benefits outweigh costs. If regulation is considered necessary, efficient methods are to be used. Efficiency, in this respect, refers to the overall impact on the community, not simply the costs of government administration.

POLICY OBJECTIVES AND INSTRUMENTS

The Task Force has not been given any particular goal for the strategies it has been asked to prepare. Its brief does not indicate, for example, what level of collection, recycling and re-use of waste oil and used tyres is to be attained or to what end. Nor does the Task Force's report address this issue.

Nonetheless, the thrust of the Task Force's proposals appears to be to increase collection, re-use and recycling whenever possible. This is reflected in, for example, the proposed doubling of oil recycling by 1995.

Is this a sound approach?

Recycling waste materials confers benefits to the community. The benefits include the value of the recycled material, and reductions in disposal costs and environmental damage.

However, recycling can also be costly. Costs are incurred in collecting, treating and recycling waste material. Moreover, for many items, it is often more expensive to gather and convert waste material back to the desired level of performance than to undertake virgin resource extraction and processing.

Given these costs, it is not in society's interests to maximise all recycling. For example, it would generally not be sensible to collect, recycle and re-use the oil out of sumps of wrecked cars.

Rather, the goal should be to undertake an optimum level of recycling: that is, a level that just balances all the environmental and other economic benefits and costs of undertaking additional recycling activities². Where current levels of recycling are less than the optimum level, increases in recycling would confer net benefits on society. Equally, though, where current levels of recycling exceed the optimum level, reductions in recycling would make society better-off (because the reduction in the benefits of recycling would be more than compensated for by the reduction in costs). In other words, in contrast to the view implicit in the Task Force's report, increases in the levels of recycling of waste lubricating oil and used motor vehicle tyres should not be seen as ends in themselves.

² Technically, the optimum level will occur where the additional environmental and other economic benefits to society from undertaking more recycling are just offset by the additional costs. Similarly, the optimum level of waste disposal occurs where the additional benefits to society from undertaking more waste disposal are just offset by the additional costs. Clearly, the two are linked insofar as increases in the optimum level of recycling will, other things being equal, tend to be reflected in reductions in the optimum level of waste disposal (and vice versa).

How can the optimum levels of waste disposal and recycling be obtained?

Decisions about these optimum levels cannot be made without weighing up the benefits (in terms of the materials recovered, tip space conserved and improvement in environmental amenity etc) against the costs of the resources used in collecting, sorting and reprocessing. This requires that values be placed on the physical quantities of the resources which are saved or used under the different options. Consequently, the optimum levels of waste disposal and recycling are extremely difficult to quantify (and therefore target).

Nonetheless, the market place embodies a mechanism for weighing up benefits and costs of waste disposal and recycling. On the basis of market incentives, decisions affecting these activities are made by firms and consumers weighing up the benefits and costs *to them* of the available options. To the extent that market prices for resources, such as space in tips and raw materials, reflect their value to society, the market determined level of waste material and recycling will approximate the optimum level. This highlights the importance of ensuring that the prices of waste disposal and recycling are appropriate.

In its *Recycling* report, the Industry Commission identified problems with current market incentives. Not all of the environmental benefits and costs associated with waste disposal and recycling are reflected in market prices, so the market mechanism alone is unable to ensure that resources will be allocated efficiently to these uses — that is, there exists some form of environmental ‘market failure’.

This provides a possible economic rationale for government to intervene in the market to encourage levels and forms of waste disposal and recycling closer to the optimum. Government intervention would be justified provided the costs of ‘government failure’ associated with intervention do not outweigh those of the market failure that it is designed to correct. And if government does intervene, the most efficient mechanism for correcting the market failure should be used.

It is generally most efficient for government to remedy the cause of the problems associated with using particular resources or discharging particular forms of waste and emission (IC 1991b). For example, where tip space is scarce and underpriced, tip charges should be increased. Equally, where the storage of particular materials poses additional environmental risks (for example, the risk of fire associated with the storage of used tyres), a risk premium can be built into disposal charges, or storage controls can be imposed. These measures increase the incentive for consumers and firms to reduce their generation of waste products by, for example, increasing recycling (or shredding tyres). Provided that the full costs of waste disposal are reflected in the measures, the resultant incentives to reduce disposal and increase recycling should promote optimality.

The ORR further considers that, if there are environmental benefits from recycling or reducing waste disposal which are not reflected in market incentives, market-based mechanisms such as these should be explored before ‘command and control’ regulation is considered. This is because market-based measures are more likely to encourage those affected to find the least-cost way of achieving the underlying objective.

However, the Task Force's report recommends command and control regulation—such as targets and bans—without any analysis or comparison of alternative mechanisms.

SPECIFIC REGULATORY PROPOSALS

Targets and end-use specification for waste lubricating oil

The Task Force advocates targets for the recycling of waste lubricating oil and for its end-use. Recommendation 2.2.2 requires that ANZEC 'ask' the oil industry to commit to collecting 70 percent of available waste oil, and to achieving an 80 percent 'acceptable' use of such oil, by December 1995. The Task Force has designated certain uses of oil as acceptable. All other uses are regarded as 'unacceptable', although some exemptions may be granted in special circumstances.³ The Task Force further recommends that, in the event that these targets are not met, ANZEC should consider alternative legislative measures to achieve similar results. In other words, these targets can be seen as de facto mandatory targets.

The rationale for setting recycling targets is not specified by the Task Force: nor is the basis upon which it decided on the level of its targets. The report does not discuss the benefits and costs which would be associated with moving towards that level or whether that level would approximate the optimum level. Rather, the level chosen appears to be simply an arbitrary doubling of the current level.

Similarly, while the Task Force's report states that unacceptable uses have been determined according to their environmental impact or to discourage the waste of a potentially valuable resource, it provides no calculations or detail to support its determinations.

The ORR has a number of concerns about the targets.

First, the arbitrary nature and high levels of the targets chosen means that action taken to achieve them could significantly reduce community well-being, because the costs of meeting the targets could significantly exceed the benefits (including the environmental benefits) involved. In other words, the targets could be set well in excess of the optimum levels of waste oil recycling and 'acceptable' end-uses.

Second, it is not sensible to set *national* targets for recycling or particular end-uses, because the costs and benefits of these activities vary according to, amongst other things, location. For example, the optimum level of waste oil recycling will tend to be higher in areas close to re-refining plants and lower further away, because of different collection and transportation costs. Similarly, while the use of

³ The Task Force has deemed re-refining, cleaning, process beneficiation and energy generation as acceptable uses of waste lubricating oil, whilst dust suppression, vegetation control, timber preservation, incomplete combustion and burial have been deemed as unacceptable uses.

waste oil for vegetation control may impose net costs in areas with environmental problems, it may confer net benefits in areas with excess vegetation problems where alternative uses are unattractive.

Third, policies based around the categorisation of end-uses into acceptable and unacceptable are potentially inefficient. As noted above, the benefit-cost ratio of different end-uses will vary from circumstance to circumstance. A simple acceptable/unacceptable categorisation based on average outcomes, even if these could be reliably determined, would therefore be inappropriate in individual cases. Further, the ‘acceptability’ approach potentially impedes competition and effects technological development. If exemption from the unacceptable category is not easily forthcoming, domestic research and innovation into new uses of waste oil may be impeded and possible benefits to the community forgone. In the ORR’s view, acceptability and value should be determined by individuals weighing up the benefits and costs of different uses, subject to appropriate government intervention to account for the external environmental and other economic affects of their activities.

Leaving aside the validity of targets generally, ‘national’ targets or complete prohibitions on particular uses could be justified only if the efficiency gains of setting requirements for specific regions or purposes were outweighed by the additional administrative and enforcement costs resulting from differentiated measures.

Overall, the ORR considers that the Task Force’s report contains insufficient evidence or analysis to justify the target approach advocated.

Tyre disposal levy

The Task Force advocates a levy scheme to apply to the disposal of used tyres. Recommendation 2.4.1 states:

Consumers of tyres in metropolitan areas be required to pay a disposal levy (or deposit...) of \$1.00 per passenger vehicle tyre and \$3.00 per commercial vehicle tyre when the used tyre is exchanged for a new tyre.

The Task Force suggests that the levy be voluntarily applied by industry at the point of sale/refitting and used to ensure the collection of tyres. The tyres would be used preferably for retreading, with the levy being accredited to the retreader. The industry would be required to provide shredding facilities in metropolitan areas for those tyres not suitable for retreading. Consumers in non-metropolitan areas would be given a choice of paying the levy or retaining their used tyres. The Task Force also recommends that, if the voluntary levy scheme is not achieved, ANZEC should examine the feasibility of a compulsory refundable deposit system.

One possible problem with the proposal is that the fixed levy amounts specified by the Task Force will not necessarily reflect the costs associated with transport and shredding. The costs will vary according to, amongst other things, distance from and throughput of the shredding facility. Levy amounts should perhaps vary to reflect these differences.

A second problem is that shredding centres may not be available to deal with returned tyres in all metropolitan centres. The viability of shredding centres will depend on a number of factors, including the relative costs of disposing of unshredded tyres and retreading, and establishing shredding centres in all metropolitan areas may not be economically warranted.

In its report on *Recycling*, the Industry Commission argued that government should address problems inherent in used tyre disposal by ensuring that waste disposal controls and charges reflected the full costs entailed:

With greater attention to environmental controls over the storage and disposal of tyres, and with disposal costs built into disposal charges, industry would itself have the incentive to levy an appropriate disposal fee.

Higher waste disposal charges and tighter controls for disposing of tyres would provide firms in the industry with incentives to establish an optimum number of shredding and retreading plants, in the most efficient locations and of optimum scale. They would also have an incentive to set tyre disposal fees to reflect the actual costs of disposal, and would have the flexibility to vary those fees as costs varied. Such an approach to waste disposal problems would also require less governmental resources, as the problems of inappropriate prices and controls could be tackled at their source and thereby influence the disposal of all products; not just tyres.

In the ORR's view, governments should focus on ensuring that waste disposal charges and controls reflect the full costs of disposal and that industry should be left to determine appropriate arrangements for collecting and retreading or disposing of used tyres.

Public sector purchasing preferences

The Task Force advocates public sector purchasing preferences for both recycled lubricating oils and retreaded tyres. Recommendations 2.2.4 and 2.4.10 state:

Governments at all levels be urged to assist by giving purchasing preference to recycled lubricants where they are competitive and fit for the purpose.

Governments at all levels be urged to review their purchasing policies with respect to retreaded tyres for non-emergency vehicles. Relevant State governments should review their legislation concerning use of retreads on passenger vehicles.

To the extent that a public sector preference for recycled lubricants or tyres occurs because they are 'competitive', the ORR has no objection to the recommendations. Indeed, in these circumstances, the proposals would not have any effect.

However, to the extent that the recommendations imply that government agencies should bear greater cost for recycled lubricants and tyres than they otherwise would, the ORR notes that such a policy would represent an implicit subsidy to the goods targeted. The subsidy would be equivalent to the amount paid by government agencies for the recycled goods, over and above what they would be willing to pay for them based on normal commercial considerations. The higher

government expenditures involved would be reflected in the budgetary position of the government and, ultimately, would be borne by tax-payers.

One problem with this is that the need for a subsidy for recycled lubricating oil or retreaded tyres has not been demonstrated. As noted, while there may be examples of market failure associated with waste disposal and recycling activities, these should generally be addressed at their source. Providing a subsidy for the recycled lubricants and tyres would tend to encourage production and consumption levels in excess of the optimum.

A second problem is that government purchasing preference policies are inefficient means of providing subsidies. For any overall level of production of recycled products, government purchasing preferences would result in a greater than optimum level of government consumption and a less than optimum level of private sector consumption. This would mean that the recycled products were not going to their most valuable uses. A general subsidy to the goods in question would avoid this problem.

The ORR therefore considers that government purchasing preferences should not be used to address environmental concerns associated with waste lubricating oil and used motor vehicle tyres.

Public authority waste management

The Task Force urges waste authorities to review their environmental controls. Recommendations 2.2.5 and 2.4.9 state (respectively):

Pollution control and waste disposal authorities review their legislation and/or increase their vigilance to minimise use and disposal of waste oil by unacceptable methods.

State pollution control and waste management authorities review their legislation and enforcement procedures to minimise improper disposal of whole tyres.

The ORR has already noted that uses deemed 'unacceptable' by the ANZEC Task Force will not always be undesirable from an economic perspective. The environmental and other economic benefits and costs of different forms of waste disposal or re-use vary between areas and, particularly in certain rural areas, the benefits of some 'unacceptable' uses may exceed the costs. Hence, to the extent that the recommendation applies to unacceptable uses and disposal methods as specified by the Task Force, the ORR advises against it.

The ORR considers that the more important role for public waste authorities is to set (and enforce) waste disposal controls and charges to reflect the full costs entailed.

Tax exemptions

The Task Force notes that, while much recycled oil is exempt from sales tax because it is not deemed to have been 'manufactured', other taxes do apply to the

industry. Oil recyclers cannot gain sales tax exemptions on plant and equipment used under the ‘aids to manufacture’ provisions in tax legislation. And while waste oil used in producing fuel oils outside Customs blended areas are to be exempted from excise, the waste oil component of fuel oils blended inside Customs bonded areas are not.

The Task Force considers that further exemptions should be allowed. Recommendation 2.2.6 states:

The Commonwealth Government review taxes and duties currently applying to the oil industry with a view to encouraging recycling and re-use.

On these matters, the Industry Commission (1991b) has stated:

...the complex nature of sales tax exemptions provides a mixed and confusing set of signals to reprocessors and collectors. Many reprocessors are denied sales tax exemption for their inputs and capital equipment as they are not deemed to be ‘aids to manufacture’. Anomalies in the taxation system which discriminate between using virgin and secondary materials should be addressed, but not by changing the system to discriminate in favour of recycled materials. (IC 1991b, p. 13)

While anomalies in the tax system should be addressed directly rather than through indirect or ‘second-best’ exemptions, the ORR notes that tax reductions or subsidies for recycling may be justified if there is no more efficient or direct mechanism for overcoming environmental market failure associated with the recycling or disposal of waste material.

Product quality standards

The Task Force notes that there is “...no standard for recycled oil either for use by industry in warranting their product, or by the consumer in discriminating between products.” Consequently, it suggests in recommendation 2.2.7 that:

Standards Australia should be encouraged and assisted in the development of an Australian Standard for lubricating oil, as a matter of priority.

The ORR supports the development of standards for lubricating oil, provided such standards do not restrict certain grades from the market. Standards which provide information on the quality and utility of different oil grades can improve consumer information and thereby enhance market processes.

Bans on imported used tyres

The Task Force notes industry concern about safety and disposal problems associated with imported used tyres. A recent sample apparently showed that only 23 percent would be suitable for retreading, and only around half that amount again suitable for direct fitment to vehicles. The Task Force summarises the industry’s position in the following terms:

While not seeking to ban the import of used tyres, the industry submits that they should be limited to a minimum tread depth of 4 millimetres which falls between new tyre treads of 8-10 mm and the minimum allowable tread depth of 1.6 mm. This would provide some assurance of available tyre life and improved protection against early failure.

The Task Force subsequently suggests in recommendation 2.4.11 that the Commonwealth examine the importation of used tyres with a view to restricting those with less than 4 millimetres tread depth.

While the ORR is concerned about the safety problems associated with poor quality used tyres (whether imported or sourced locally), it considers that any such problems should be addressed using the most economically efficient means. This will generally involve using direct measures, such as vehicle registration requirements, to enforce safety standards. By contrast, indirect regulations often impose unduly high costs and distort market processes.

In this context, the ORR has four concerns about the proposed ban.

First, the ban would reduce opportunities for profitable waste trade between Australia and other nations. In this regard, given the greater availability of disposal space in Australia compared to certain overseas nations such as Japan, trade in waste tyres could be beneficial for the countries involved. Foreign nations would benefit through reduced demand on their disposal sites whilst Australia would benefit through higher foreign exchange earnings. Provided that the full costs of disposing of tyres in Australia are reflected in disposal charges, the importation of used tyres — even those with no usable life left— would confer net benefits to Australia.

Second, the ban would reduce competition for the local tyre industry. This could result in higher domestic tyre prices with a consequent reduction in consumer well-being. Moreover, the welfare of low income consumers would probably be most affected, as they are more likely to purchase used tyres than consumers on high incomes.

Third, such a ban could constitute a form of trade protection and has implications for Australia's commitments and bargaining position in international trade forums and under the GATT.

Fourth, the cost to Customs of policing and enforcing such restrictions could be high.

The ORR could only support a ban if there were not a less costly alternative for ensuring appropriate safety in those imports which actually end up on motor vehicles. The Task Force's report, however, does not address this issue.

CONCLUDING COMMENTS

While the ORR supports the incorporation of environmental considerations within government policy and private decision making, it is highly critical of the Task Force's draft report. The report fails to specify the objectives or rationale for the policies it proposes. Nor does it provide any indication of the likely benefits and costs of its proposals, nor compare them with alternatives for achieving recycling and re-use.

The ORR considers that, in its final report, the Task Force needs to:

- identify market failures associated with the disposal and/or recycling of waste oil and used tyres;
- identify alternative corrective measures and the main benefits and costs (including the costs of government failure) associated with them;
- compare the alternatives objectively; and
- undertake analysis from an economy-wide perspective.

The ORR considers it generally most efficient for governments to address waste disposal and recycling problems at their source. This involves setting waste disposal controls and charges to reflect the full environmental and other economic costs entailed. With these measures in place, market forces should promote an optimum allocation of resources to these activities.

REFERENCES

Australia and New Zealand Environment Council (ANZEC) Oil and Tyres Task Force 1991, *Waste Lubricating Oil, Used Motor Vehicle Tyres, Recycling and Reuse*, Draft Report, Adelaide, August.

Industry Commission (IC) 1991a *Recycling*, Report No. 6, AGPS, Canberra.

— 1991b, *Comments on a Draft National Waste Minimisation and Recycling Strategy*, Information Paper, Canberra, August.

— 1991c, *Annual Report 1990-1991*, AGPS, Canberra.

