

Committee for the Environment

An Interim Report on the Committee's Inquiry into Used Tyre Disposal

**Together with the Minutes of Proceedings, Minutes of Evidence
and Written Submissions Relating to the Report**

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**REPORT EMBARGOED
UNTIL COMMENCEMENT
OF DEBATE IN PLENARY**

Membership and Powers

The Committee for the Environment is a Statutory Departmental Committee established in accordance with paragraphs 8 and 9 of the Belfast Agreement, section 29 of the Northern Ireland Act 1998 and under Standing Order 48.

The Committee has power to:

- Consider and advise on Departmental budgets and annual plans in the context of the overall budget allocation;
- Consider relevant secondary legislation and take the Committee stage of primary legislation;
- Call for persons and papers;
- Initiate inquiries and make reports; and
- Consider and advise on any matters brought to the Committee by the Minister of the Environment

The Committee has 11 members including a Chairperson and Deputy Chairperson and a quorum of 5. The membership of the Committee since 9 May 2011 has been as follows:

Ms Anna Lo MBE (Chairperson)
Mr Simon Hamilton (Deputy Chairperson)
Mr Cathal Boylan
Mr Gregory Campbell*
Mr Willie Clarke**
Mr John Dallat
Mr Danny Kinahan
Mr Patsy McGlone
Mr Francie Molloy
Lord Morrow
Mr Peter Weir

*Mr Gregory Campbell replaced Mrs Paula Bradley on 20 February 2012

** Mr Willie Clarke resigned from the Assembly on 16 April 2012

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Acronyms Used in this Report

Arc 21	arc21 Waste Management Group
DEFRA	Department for Environment, Food and Rural Affairs (UK)
DECLG	Department of the Environment, Community & Local Government (ROI)
EA	Environment Agency for England and Wales
IACS	Integrated Administration and Control System
NTDA	National Tyre Distribution Association
NIEA	Northern Ireland Environment Agency
NIFRS	Northern Ireland Fire and Rescue Service
NILGA	Northern Ireland Local Government Association
NWRWMG	North West Region Waste Management Group
PAS	Publicly Available Specification
REACH	Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals
SEPA	Scottish Environment Protection Agency
SWAMP	SWAMP2008 Waste Management Group
TRA	Tyre Recovery Association
TRACS	Tyre Recovery Activity Compliance Scheme
TWM	Tyre Waste Management Scheme
UFU	Ulster Farmers' Union
WEEE	Waste Electronic and Electrical Equipment [Directive]
WRAP	Waste and Resources Action Programme

Executive Summary

Purpose

On 23 June 2011 the Committee for the Environment agreed to conduct an inquiry into the management of used tyres in Northern Ireland. The Committee sought evidence from a wide range of stakeholders which included asking councils to indicate the nature and severity of any issues they had with used tyres, if these had changed over the years and what measures they had taken to address them.

Shortly after the Committee announced its inquiry, the Department for the Environment indicated that it would be initiating a Waste Data Survey to update its information on the numbers of tyres arising in Northern Ireland and their disposal. The Committee agreed to defer making final recommendations until after the Department had completed its survey and instead agreed to produce an interim report and make draft recommendations once it had completed gathering evidence.

This interim report sets out the Committee's consideration of evidence and its draft recommendations.

Legal framework for the collection, storage and disposal of used tyres and how this is monitored and enforced by the Northern Ireland Environment Agency

Much, if not all, of the necessary legislation is in place to underpin the proper management of used tyres in Northern Ireland. However, many waste tyres are handled illegally because they have the potential to generate financial benefit for those involved. For those ignorant of the law or indifferent to it, lack of enforcement undermines the current Duty of Care approach.

Proper adherence to the current legal framework for the collection, storage and reprocessing of end of life tyres is costly and protracted. The system of awarding a waste carrier's licence quickly without much scrutiny until the more rigorously assessed application for a Waste Management Licence is awarded can be easily exploited. The current rationale allowing some businesses to operate under an exemption from the Waste Management Licence in relation to used tyres should also be revisited.

It would appear NIEA tends to focus its resources on monitoring compliance rather than targeting illegal operators and has not supported council initiatives to improve management of tyres in local areas.

The Department needs to finalise and implement its flytipping protocol for councils. NIEA needs to develop a risk-based approach to enforcement, work more closely in partnership with local authorities and the PSNI during the licensing process and when monitoring compliance. It also needs to ensure that the application period for a Waste Management Licence is not used for unscrupulous activity and to review and update exemptions to Waste Management Licences.

Current audit trail for managing tyres from purchase through to disposal and key responsibilities at critical stages

The UK operates a free market system where the legislation sets objectives but does not identify who in the tyre recovery chain should be responsible for waste tyres. In Northern Ireland, as in the rest of the UK, tyre retailers can charge an environmental disposal charge on customers for the disposal of used tyres but the Department has no statutory remit

or powers with respect to a tyre recycling charge. There is no audit trail of charges levied, presentation of the charge on invoices is variable and there is no information that allows the customer to know how the charge is being used. The Department does not hold information on the amount of money generated by charges but suggests that it could potentially be £1.8-£3.6 million annually. Evidence suggests that environmental disposal charges in Northern Ireland are higher than those in the rest of the UK except South West England.

Obtaining licences to carry tyres legally is too easy and the Department does not have the resources to conduct sufficient checks prior to waste carrier licences being issued or carry out compliance checks afterwards. Successful management of used tyres depends on rigorous and well resourced enforcement but better communication could also play a key role.

The impracticalities of tyre marking mechanisms to facilitate the proper management of used tyres across Northern Ireland make them unlikely to feature in the near future.

The Office of Fair Trading should be asked to investigate discrepancies between the levies charged by tyre retailers in Northern Ireland and those in other regions. NIEA should conduct compliance checks before issuing licences to carry tyres, monitor holders and publish a list of currently licenced re-processors on its website updating it weekly. NIEA should also raise awareness of the need to manage used tyres properly through a communications campaign.

Comparison of the NI approach to managing used tyres with other approaches

The majority of EU countries operate under a producer responsibility system where tyre ‘producers’ are responsible for managing end-of-life tyres. Producers are usually defined as any organisation in the tyre chain including manufacturers, retailers, importers and recyclers. Most schemes appear to operate through a collection system requiring the producer, or an organisation on their behalf, to collect the same number of tyres they have produced.

The argument that a producer responsibility scheme would not work in a heavily branded market such as Northern Ireland, is not borne out by experience in other European countries.

The UK, including Northern Ireland, currently operates a free market system where the legislation sets objectives but does not define how these are to be met. This would not appear to be a dependable way of ensuring proper management even when the necessary legislation is in place as its success is reliant on global markets and can be vulnerable to failure during an economic downturn. Experience in England and Wales indicates that voluntary self-auditing schemes can work well for the majority within an industry willing to participate and can free up resources for enforcement bodies to focus on illegal activity. However, they do not do away with the need for effective enforcement.

The Republic of Ireland also allows the free market to operate but the big difference between it and Northern Ireland is that it requires anyone operating in the tyre industry to be registered and submit data to an approved compliance company or the local council.

There are potential risks if two different approaches to used tyre management operate north and south of the border. If a full producer responsibility scheme was introduced in the Republic of Ireland the cost of tyres would be increased to pay for it and this would make tyres in Northern Ireland appear cheaper as a result. Also, as producers would only be responsible for tyres in the Republic of Ireland, many tyres would be reported as coming from Northern Ireland.

The introduction of a producer responsibility scheme should be considered in the long term for better management of used tyres in Northern Ireland but the Department should liaise with the Republic of Ireland when considering any long term approach for dealing with used tyres. In the short term the Department needs to be more proactive in its tracking and enforcement of used tyres including auditing retailers and the Committee believes that

making it mandatory for tyre producers in Northern Ireland to register with a compliance scheme would facilitate this. It also believes NIEA should regularly participate in the UK-wide Used Tyre Working Group.

Number of used tyres arising annually in Northern Ireland

There is a high but unknown volume of used tyres arising in Northern Ireland throughout the year. Current Departmental estimates based on previous surveys and Assembly Research papers suggest it is in the region of 30,000 tonnes per year or 1.8 million tyres, nearly double the amount in 2000. Indications are that only 17% of this is actually being recovered.

Significant amounts of used tyres are not being disposed of in a way that meets legal and environmental obligations and while estimates suggest this might be improving it would still seem to be well below the target of the 2006-2020 Waste Management Strategy.

The Department should establish a robust method of quantifying the amount of waste tyres arising in Northern Ireland on an ongoing basis with a clear current indication of what proportion of these are not recovered and utilised on a proper manner. The Department should also require public bodies to quantify and report the number of waste tyres found on their property before making arrangements for their disposal.

Extent of historical stockpiles of used tyres in Northern Ireland and consideration of how these could be incorporated into the established process for managing used tyres

Comparatively little information was presented to the Committee about stockpiles but the evidence provided to the Committee by councils suggests that stockpiling of tyres for, and their use on, bonfires is declining due to proactive initiatives by councils and community groups and no longer presents the major risk associated with tyres. A much more significant risk would now appear to be fires at large stockpiles of tyres.

A small percentage of used tyres remain on farms covering silos but as more farms move towards round bale silage there is a decreasing need for tyres on farms. Those that are, are covered under the Duty of Care Regulations but registered carriers to remove tyres are hard to find.

Councils that still have evidence of stockpiling for bonfires should continue with their endeavours to minimise if not eliminate them and NIEA should be supportive in this task. There needs to be tighter regulation around the most appropriate storage of tyres for disposal but the impact of fluctuations in global markets needs to be taken into account by the enforcement authority when making decisions.

All tyre depots should be required to submit an annual report to NIEA and the Department should conduct adequate policing of tyre depots to ensure all tyres are accounted for. NIEA should publicise licenced carriers on its website and update it regularly and while it would not be necessary for farmers to register with a compliance scheme, they should be required to record the number of used tyres held on their farm on their annual IACS return.

Potential for the development of an environmentally sound, economically viable and self-sustaining end-use market in Northern Ireland (including the consideration of alternative uses for used tyres)

The island of Ireland has a number of tyre recycling and reprocessing facilities with several companies looking to invest over the next few years. However, there are currently only two operating in Northern Ireland.

Indecision and/or a reluctance to be proactive in definition of waste by NIEA would appear to be making it more difficult for existing and potential recycling companies to identify and maximise markets leaving them at a disadvantage compared with their competitors in GB and the Republic of Ireland.

New and better enforcement of existing legislation could improve end-use management of used tyres by ensuring that end-of-life tyres can only be disposed of through authorised/certified disposal routes and the operations of end-of-life transporters, sorters, storage facilities and processing facilities are properly governed.

More research and development is needed into other potential waste tyre outlets such as cement kilns, depolymerisation, incorporation of tyre bales into concrete blocks, artificial reefs and crumb rubber manufacture

Retreading used tyres has become highly specialised and improved technology ensures a safe product. The industry should now endeavour to make the concept of retread tyres more acceptable to the public by developing and marketing accredited retread tyres as an economically viable and safe option.

NIEA should carefully, clearly and quickly identify definitions of end of waste in a proactive rather than reactive way so that recyclers can plan their marketing strategies confidently and respond rapidly to changing global markets.

Recommendations

Legal framework for the collection, storage and disposal of used tyres and how this is monitored and enforced by the Northern Ireland Environment Agency

1. The Department should finalise and implement its flytipping protocol setting out thresholds for councils and NIEA to deal with flytipped waste. The threshold for non-hazardous waste should be 20m³ and councils should not have to bear any responsibility for hazardous flytipped waste
2. NIEA should develop a risk-based approach to enforcement that focuses its resources on illegal activity
3. NIEA should liaise more closely with local authorities and PSNI to provide a partnership approach to ensuring compliance. This should include cooperation with and involvement of the local council when issuing licences within that area and when monitoring how they are being implemented
4. The Department should conduct regular compliance inspections prior to the granting of a Waste Management Licence to ensure this unlicensed period is not being taken advantage of by unscrupulous operator
5. The current rationale for allowing some practices to operate under an exemption from the Waste Management Licence in relation to used tyres should be examined and updated

Current audit trail for managing tyres from purchase through to disposal and key responsibilities at critical stages

6. The Office of Fair Trading should be asked to investigate discrepancies between the levies charged by retailers under the Duty of Care system in Northern Ireland and those in the other regions of the UK
7. NIEA should conduct compliance checks before issuing Waste Carrier Licences and should monitor the holders afterwards increasing the cost of the licence to cover this if necessary
8. NIEA should publish on its website lists of currently licenced re-processors and those in breach of their licence and update it weekly
9. The Department should conduct a communications campaign through its 'Re:think Waste' brand to highlight the value of recycling tyres

Comparison of the Northern Ireland approach to managing used tyres with other approaches

10. Northern Ireland should liaise with the Republic of Ireland when considering a suitable mechanism for dealing with used tyres. A strict producer responsibility scheme would be counterproductive unless introduced in both jurisdictions
11. In the longer term, Northern Ireland should consider the introduction of a strict producer responsibility scheme but the nature of such a scheme and its timing should be developed in close liaison with the Republic of Ireland as indicated in recommendation 10

12. In the short term, the Department should require all sectors in the used tyre chain to register with a compliance scheme to enable it to be more proactive in the tracking and enforcement of tyres including the auditing of retailers
13. NIEA should regularly participate in the UK-wide Used Tyre Working Group

Number of used tyres arising annually in Northern Ireland

14. The Department should establish a robust method of quantifying the amount of waste tyres arising in Northern Ireland on an ongoing basis with a clear current indication of what proportion of these is not recovered and utilised in a proper manner
15. The Department should require public bodies to quantify and report the number of waste tyres found on their property before making arrangements for their disposal

Extent of Historical stockpiles of used tyres in Northern Ireland and consideration of how these could be incorporated into the established process for managing used tyres

16. All tyre depots should be required to submit an annual report to NIEA.
17. NIEA should publish on its website a list of licensed waste carriers and update it on a regular basis.
18. The Department should conduct adequate policing of tyre depots to ensure all tyres are accounted for.
19. Farmers should be required to record the number of tyres held on their farm on their annual IACS return.

Potential for the development of an environmentally sound, economically viable and self-sustaining end-use market in Northern Ireland (including the consideration of alternative uses for used tyres)

20. NIEA should carefully, clearly and quickly identify definitions of end of waste in a proactive rather than reactive way so that recyclers can plan their marketing strategies confidently and respond rapidly to changing global markets

Introduction

Background

On 23 June 2011 the Committee for the Environment agreed to conduct an inquiry into the safe disposal of used tyres in Northern Ireland.

This decision was reached following the Committee's consideration of the Outgoing Committee's Legacy Report including information it had sought from individual councils and a briefing from Research and Information Service on tyre disposal. The Committee was concerned that the most recent information suggested that 30% of used tyres were unaccounted for but equally concerned that this information was based on a survey that was over 10 years old.

The Committee agreed to call for written evidence on the terms of reference during the 2011 summer recess and take oral evidence and conduct visits during autumn 2011.

Aim and Terms of Reference

The Committee for the Environment agreed the aim and terms of reference of its inquiry at its meeting of 30 June 2011.

Aim

'To examine the current approach to the management of used¹ tyres in Northern Ireland'.

Terms of Reference

The Committee will:

- Examine the legal framework for the collection, storage and disposal of used tyres and consider how this is monitored and enforced by the Northern Ireland Environment Agency
- Critically examine the current audit trail for managing tyres from purchase through to disposal and establish key responsibilities at critical stages
- Compare the Northern Ireland approach to managing used tyres with other approaches e.g. Producer Responsibility, Tax system etc.
- Estimate the number of used tyres arising annually in Northern Ireland
- Establish the extent of historical stockpiles of used tyres in Northern Ireland and consider how these could be incorporated into the established process for managing used tyres
- Establish the potential for the development of an environmentally sound, economically viable, and self-sustaining end-use market in Northern Ireland and make recommendations accordingly (this would include consideration of alternative uses for used tyres)
- Make recommendations to enhance the transparency and robustness of the processes that underpin the management of used tyres in Northern Ireland
- To produce a report on the findings and recommendations of the Inquiry after the Department for the Environment has:
 - a. provided up to date data and a detailed breakdown of the waste tyre sector
 - b. produced a Tyres Action Plan

¹ The term 'used' tyres in the context of this Inquiry means retreadable tyres + second hand tyres + exportable tyres + end of life tyres.

Committee Approach

The Committee agreed to the placing of a public advertisement in the local newspapers on 30 June 2011. In addition, the Committee agreed to write directly to 30 interest groups, to request submissions on the terms of reference of the inquiry. In total the Committee was pleased to receive 23 written submissions to the inquiry. These are contained in Appendix 3.

The Committee received an oral briefing from the Department on 22 September 2011. In addition to informing the Committee regarding the current regulation of waste tyres officials also highlighted the Department's proposals to ensure greater protection of human health and the environment.

At this meeting the Department requested that the Committee awaited the outcome of a waste data survey it was commencing to provide up to date data and a detailed breakdown of the waste tyre sector. It also asked the Committee to allow time for it to develop and implement an action plan of measures. The Committee agreed to postpone concluding its report on its inquiry until the Department had provided up to date data and produced an action plan.

On 22 September 2011 the Committee agreed to receive oral evidence from the following stakeholders as well as the Department. Official reports of oral evidence are available in Appendix 2:

- Michelin Tyre Manufacturers, Broughshane (this briefing was subsequently cancelled)
- arc 21
- SWaMP2008
- PPP Recycling
- National Tyre Distributors Association
- Belfast City Council
- Ballymena Borough Council
- Newline Waste Solutions
- Northern Ireland Local Government Association
- Kerr's Tyres (as a representative of the retail tyre retail sector)

Oral briefings

22 September 2011

The Committee was briefed by the Department of the Environment and the Northern Ireland Local Government Association (NILGA) at its meeting on 22 September 2011.

The main areas of the discussion were:

- producer responsibility
- the charge by a retailer to dispose of a tyre
- the strategy for dealing with used tyres
- enforcement
- the possibility of a traceability system

Following the meeting members agreed the following:

- That clarification is sought on the recruitment of staff to the Environmental Crime Unit, specifically the numbers being recruited and the reasons for the unit being significantly under its staff complement.

- That the reporting period of the inquiry is extended to allow time for the Department to provide the outcome of their Waste Data Survey and develop and implement their Action Plan.
- That a press release is issued welcoming the Department's proposals to review and develop an Action Plan for used tyres and indicate an extension to the Committee's Inquiry report to accommodate the data this will generate.

13 October 2011

The Committee was briefed by the Tyre Recovery Association (TRA) and Belfast City Council at its meeting on 13 October 2011. The main areas of discussion were:

- illegal disposal of tyres
- the approach of the Environment Agency in England to used tyre disposal
- the market for end of life tyres
- waste permit licences
- cross border movement of tyres
- fee charging for disposal of tyres and traceability
- prosecutions for illegal dumping
- European Directives on dealing with end of life tyres
- the Council's relationship with NIEA and other statutory agencies on this issue

20 October 2011

The Committee was briefed by Ballymena Borough Council and Newline Waste Solutions at its meeting on 20 October 2011. The main areas of discussion were:

- the benefits of a tyre marking scheme
- bonfires
- co-operation with NIEA
- the options for a traceability mechanism
- the need for legislation to deal with the issue
- the environmental impacts of pyrolysis

1 December 2011

The Committee was briefed by Arc 21, Kerr's Tyres and SWaMP 2008 at its meeting on 1 December 2011. The main areas of discussion were:

- enforcement
- NIEA's role
- waste management strategies
- the need for regulation of the tyre industry
- the Flytipping Protocol
- producer responsibility
- bonfires
- tyres on farms

8 December 2011

The Committee was briefed by the Tyre Recovery Activity Compliance Scheme (TRACS), Bridgestone Tyres and DEPOTEC at its meeting on 8 December 2011. The main areas of discussion were:

- self-compliance schemes
- producer responsibility
- enforcement
- cross border movement of tyres
- end of life markets for tyres
- the depolymerisation process
- restrictions on end of life tyre use and disposal

Committee Visits

The Committee also undertook a series of visits to a range of organisations involved in the management of used tyres throughout the island of Ireland as follows. Written reports of the visits are provided in Appendix 6 and a summary of issues raised in Appendix 7.

- R4 Ltd, Tyre Recycling, Portadown
- OM Tyre Recycling, Mayobridge
- DEPOTEC project, Cork
- Bridgestone Tyre Manufacturers, Dublin
- Tyre Recovery Activity Compliance Scheme, Dublin

During its visit to Dublin members were informed that enforcement of used tyre management takes place at local authority level in the Republic of Ireland. The Committee subsequently requested more information on the roles of the Department of the Environment, Community and Local Government and the Environmental Protection Agency in the management of used tyres, including any strategies, legislation or guidance provided.

The responses are included in Appendix 6.

Chairperson's meetings

After the Committee had concluded taking evidence a number of organisations wrote asking for an opportunity to demonstrate their solutions for dealing with used tyres. Under the terms of reference of the Inquiry, the Committee had agreed to establish the potential for the development of an environmentally sound, economically viable, and self-sustaining end-use market in Northern Ireland so members were keen to learn what options were available. With too little time left to take formal evidence from or visit these organisations, the Committee asked them to provide more detailed information in writing. The Chairperson and members also met some of the organisations informally. Notes of meetings and written submissions from the following organisations are included at Appendix 6.

- Crumb Rubber Ltd.
- Waste to Energy
- Crane Tyre Recycling

Acknowledgements

The Committee would wish, at this stage, to record its thanks to all those who participated in the inquiry through the provision of written and oral evidence and the hosting of visits.

Context of the Inquiry

In 2010 the previous Committee for the Environment scrutinised the Waste and Contaminated Land (Amendment) Bill aimed at providing greater powers to councils to address illegally dumped waste. The issue of used tyres was frequently raised and the Committee questioned the approach taken by the Department on their safe disposal. The Department admitted that its light touch approach to the safe disposal of tyres in the form of Duty of Care was not an effective mechanism. The Committee requested an Assembly Research paper on tyre disposal in European countries and was surprised to note that in 2006 in the UK 93% of tyres were recovered for recycling but disappointed that the UK is still ranked behind many other countries such as Austria, Belgium, Denmark, Finland, France, Germany, Hungary, the Netherlands, Portugal, Slovakia, Sweden and Norway, all of whom claimed 100% diversion of tyres from landfill.

Members felt that anecdotal evidence would suggest recycling of tyres in Northern Ireland is considerably lower than the 93% UK figure. This was supported by evidence from a Departmental survey in 2000 that identified 30% of used tyres in Northern Ireland being unaccounted for.²

In October 2010 the Committee wrote to every council and asked for feedback on the extent of illegal dumping and burning of tyres in their areas during the Halloween period. 12 of the 26 councils responded, with 2 of the councils indicating problems with illegal tyre disposal during Halloween and 6 during the summer months. 2 councils indicated they had problems with illegal disposal but did not identify a particular time of year and 2 said they had no problems with used tyres. The Committee had insufficient time to analyse the results further but identified in its Legacy Report that this was an area an incoming Committee might like to consider in more detail.

On considering the Legacy Report on 25 May 2011, the new Committee for the Environment requested a briefing from Research and Information Service which was provided on 23 June 2011. Following the briefing members agreed to conduct an inquiry into the management of used tyres in Northern Ireland.

At the outset of the inquiry the Committee endeavoured to identify and locate the extent of the problem by inviting councils to indicate the nature and severity of any issues they were having with used tyres. Councils were also asked to consider if they thought the nature of the tyre problems had changed over the years and any measures they had taken to address them.

15 councils replied giving a total of 20 council responses for the 2 Committee requests for information on problems with used tyres. One council indicated that incidences of tyres being burned on bonfires are getting worse but most indicated that the number of tyres ending up on bonfires had decreased over the last 5 years, largely due to proactive measures taken by councils to work with communities and promote positive practice through bonfire schemes. Only the few bonfires outside such schemes appeared to still have a number of tyres being burnt.

However, a number of councils reported that indiscriminate small scale dumping of tyres appears to be increasing.

Most councils called for the Department to allocate more resources to enforcement and introduce more regulations. A number suggested that an individual tyre identification scheme should be introduced to allow tyres to be tracked and traced.

Further details of council responses are provided in the consideration of evidence.

On 22 September 2011 the Department informed the Committee that it was initiating a Waste Data Survey to update its information on the numbers of tyres arising in Northern

Ireland and their disposal. Officials also advised the Committee that they were developing an action plan for used tyres. Consequently, the Committee agreed to defer a final report on its inquiry until after the Department had reviewed and updated its statistics on waste tyre arisings. Instead it would produce an interim report drawing preliminary conclusions and making draft recommendations once it has completed gathering evidence.

If the Committee believes its recommendations to be valid in advance of further information to be provided by the Department it will seek Assembly support for its Report. After the Department has produced its Waste Data Survey the Committee will consider the need for adjustments to its recommendations in light of any emerging relevant information.

Consideration of Evidence

Legal framework for the collection, storage and disposal of used tyres and how this is monitored and enforced by the Northern Ireland Environment Agency

A number of regulations have been introduced in Northern Ireland over the last 10 years to implement National and European waste legislation that have helped to regulate the management of waste tyres including:

- *The Waste and Contaminated Land (Northern Ireland) Order 1997* under which a waste management licence is normally required to authorise the deposit, treating or disposal of controlled waste on land
- *The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations (Northern Ireland) 1999* which provide that only registered carriers can be used for the transportation of waste tyres
- *The Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002* which require that waste tyres are handled with due regard and that all reasonable steps are taken to keep the waste safe. The regulations require that waste producers ensure that waste transfers are documented and that this documentation must be held for at least two years.
- *The Waste Management Licensing Regulations (Northern Ireland) 2003 (as amended)* which stipulate the criteria and thresholds for the storage, collection and recycling of waste tyres. This may refer to whole tyres, bales, shredded or crumbed tyres.
- *The Landfill Regulations (Northern Ireland) 2003 (as amended)* which prohibit the disposal of waste tyres, both whole and shredded from landfill.
- *The End of Life Vehicles Regulations 2003* which require a waste operator to hold an Authorised Treatment Facility licence to be able to depollute end of life vehicles. The licence requires the operator to remove waste tyres, store them safely and comply with the Duty of Care and record keeping.
- *European Regulation 1013/06/EC on the shipment of waste* controls the movement of waste shredded tyres into and out of the UK. NIEA is the competent authority for the trans-frontier movements of waste tyres.

The main legislative driver affecting used tyres is the Landfill Regulations (Northern Ireland) 2003. These implement the EU Landfill Directive (99/31/EEC) which prohibits whole used tyres from being sent to landfill. Shredded tyres were also banned from landfill from 2006 along with waste electrical and electronic equipment, end of life vehicles and batteries, tyres are identified as a Priority Waste Stream under EU legislation.

Offences under Article 4 of the Waste and Contaminated Land (NI) Order 1997 such as treating or keeping waste without a licence or in a manner likely to cause environmental pollution are classed as serious crime under the Serious Crime Act 2007.

The Waste and Contaminated Land (Amendment) Act (NI) 2011 legislates for greater partnership working between the Northern Ireland Environment Agency (NIEA) and local government to tackle fly-tipping. However a number of councils made it very clear that they were dissatisfied with the proposed thresholds demarcating the responsibilities of central and local government in relation to illegally dumped waste in the fly-tipping protocol which underpins this legislation. The councils argue that the thresholds should be reconsidered predominantly on the grounds of cost. The Committee is supportive of the councils' position that all hazardous waste should be dealt with by NIEA but agrees the 20m³ threshold for non-hazardous fly-tipped waste.

Most councils that responded to the Inquiry raised concern about the lack of cooperation and support they receive from the Department and/or NIEA in enforcing the law. Councils argue that until the sections of the Waste and Contaminated Land Act that give them more powers to tackle fly-tipped waste are enacted, they have no statutory obligations in this regard. One council submitted a reply it had received from the Department in response to a request for more support in dealing with waste tyres and was advised that:

- *NIEA ... is limited in its ability to carry out inspections of producers of waste tyres ... [NIEA] is not planning to carry out inspections in [your] area this year.*
- *[NIEA] will not be responding by means of physical inspections of sites, but will accept witness statements from individuals and [council] staff as a basis for further investigation*
- *[NIEA] will be unable to investigate incidences where [it is] given information but those reporting it are unwilling to give a formal witness statement.*
- *... [NIEA] focus is on commercial sources*

The Committee asked the Department to comment on this approach and was informed that without an identifiable suspect the Department's Environmental Crime Unit cannot pass papers to the Public Prosecution Service, so to have a reasonable likelihood of conviction evidence needs to be backed up by statements. It also stresses that the Environmental Crime Unit has insufficient resources to check on all bonfires reported and that it was set up to investigate and prosecute environmental offending on a serious and persistent commercial scale.

The Tyre Recovery Association (TRA) feels that one of the key problems is that adhering to the law for collection, storage and reprocessing used tyres is expensive and takes a long time. New applications can take well over a year to process and in this interim period operators are able to apply for a waste carrier's licence costing relatively little and operate under this until the Waste Management Licence is granted or denied. This provides a window of opportunity for unscrupulous operators.

The Committee sought further information on the typical length of time taken to obtain a Waste Management Licence in Northern Ireland and was informed that the statutory time period for determining a new application for a waste management licence is 4 months. The Department's determination of the application commences when the application is deemed to be 'Duly Made' and depends, according to the Department, on the quality of information provided by the applicant. The processing period can be extended by formal written agreement between the applicant and the Department.

In the last year 42 new waste management licence applications have been received and 15 have been issued. The average processing time for these 15 is 3.5 months. Of the 27 that have not been determined, 18 were received within the last 4 months. The remaining 4, received between 6 and 11 months ago have been delayed because of outstanding planning, water discharge or technical competency issues which the applicant and/or Department need to resolve with other Department or bodies.³

A similar 4 month period for issuing waste management licenses exists in the other UK jurisdictions but in England and Wales this is reduced to 3 months if an application does not require public consultation.⁴ In England and Wales if the application has not been determined within the 3/4 months or agreed extended period, the applicant can assume the application is refused and can appeal. In England, Wales and Scotland, the decision time period will

3 Information obtained via written response from the Department of the Environment, 16 March 2012

4 Business Link, Environmental permits. Available at: <http://www.businesslink.gov.uk/bdtog/action/layer?topicId=1086287989>

be halted until any requests for more information from the applicant have been provided.⁵ (Appendix 6).

Several organisations also questioned the current rationale governing exemptions to Waste Management Licensing. They felt that companies able to avail of such exemptions have a lower cost base and can undercut fully regulated businesses.

There are 49 exempted activities detailed in Schedule 2 Part 2 of the Waste Management Licensing Regulations (Northern Ireland) 2003.

Relatively low risk activities are termed ‘Simple Exemptions’ while activities that carry a higher risk to the environment and human health are termed ‘Complex Exemptions’. Most simple and all complex activities must be registered with NIEA before they commence.⁶ Some simple exemptions apply to tyres, for example:

- Paragraph 17 of the regulations allows the secure storage of particular waste types where the waste is to be reused. It can include up to 250 tyres.⁷
- Paragraph 18 of the regulations allows the storage of permitted waste streams, which include waste tyres, on any premises in a secure container. There must be no more than 20 containers on the premises and the storage capacity of the container or containers must not exceed 400 cubic metres in total.⁸

The recycling companies that the Committee visited were concerned that delayed decisions by NIEA and its lack of flexibility in deciding on how recycled tyres should be defined (waste vs. product) was causing difficulties for them in terms of accessing markets and transporting materials.

The Waste Management Strategy for Northern Ireland 2000 had a target to recover 85% of tyres by 2005 and 100% by 2010, however the Department’s Waste Management Strategy 2006-2020 has no specific target for tyre recovery but an indication that consideration is also being given to the extension of producer responsibility to tyres.⁹

Conclusions

The Committee believes that much, if not all, of the necessary legislation is in place to underpin the proper management of used tyres in Northern Ireland. However, many waste tyres are handled illegally because they have the potential to generate significant financial benefit for those involved. For those ignorant of the law or indifferent to it, lack of enforcement undermines the current Duty of Care approach.

Proper adherence to the current legal framework for the collection, storage and reprocessing of end of life tyres is costly and protracted. The system of awarding a waste carrier’s licence quickly without much scrutiny until the more rigorously assessed application for a Waste Management Licence is awarded can be easily exploited. The current rationale allowing some businesses to operate under an exemption from the Waste Management Licence in relation to used tyres should also be revisited.

NIEA would appear to focus its limited resources on monitoring companies that can readily demonstrate their adherence to the law and has been unsupportive of attempts being made by local authorities to ensure better management of used tyres in local areas.

5 Scottish Environment Protection Agency, Waste Management Licence Application Forms. Available at: http://www.sepa.org.uk/waste/waste_regulation/application_forms/waste_management_licence.aspx

6 <http://www.doeni.gov.uk/niea/waste-home/authorisation/exemption.htm>

7 http://www.doeni.gov.uk/niea/waste-home/authorisation/exemption/simple_exemptions/simple_exemption_para_17.htm

8 http://www.doeni.gov.uk/niea/waste-home/authorisation/exemption/simple_exemptions/simple_exemption_para18.htm

9 <http://www.doeni.gov.uk/niea/wms.17.pdf>

Recommendations

- The Department should finalise and implement its flytipping protocol setting out thresholds for councils and NIEA to deal with flytipped waste. The threshold for non-hazardous waste should be 20m³ and councils should not have to bear any responsibility for hazardous flytipped waste
- NIEA should develop a risk-based approach to enforcement that focuses its resources on illegal activity
- NIEA should liaise more closely with local authorities and PSNI to provide a partnership approach to ensuring compliance. This should include cooperation with and involvement of the local council when issuing licences within that area and when monitoring how they are being implemented
- The Department should conduct regular compliance inspections prior to the granting of a Waste Management Licence to ensure this unlicensed period is not being taken advantage of by unscrupulous operator
- The current rationale for allowing some practices to operate under an exemption from the Waste Management Licence in relation to used tyres should be examined and updated

Current audit trail for managing tyres from purchase through to disposal and key responsibilities at critical stages

Current audit trail in Northern Ireland

Based on a survey carried out in 2000¹⁰ there are between 16,000 and 18,000 tonnes of waste tyre arisings per year in Northern Ireland. This same survey indicated that 30% were unaccounted for, 32% went to retread manufacturers and 16% went to farmers. The remainder was reused, stockpiled, landfilled, burned etc. A report by the Interagency Working Group on Bonfires¹¹ estimated that tyres comprised 30% of bonfire materials in 2004, however council initiatives are likely to have impacted on this figure. Anecdotal evidence suggests fewer tyres are going on to bonfires but no available current data is available to underpin this.

The UK operates a free market system where the legislation sets objectives but does not identify who in the tyre recovery chain should be responsible for waste tyres. However, Northern Ireland as part of the UK, has a duty to report waste arisings to the European Commission under the Waste Statistic Regulation (No 2150/2002) and organisations have an obligation to provide accurate data on waste arisings to the NIEA.

In Northern Ireland tyre retailers can charge an environmental disposal charge on customers for the disposal of their used tyres. The Department has no statutory remit or powers with respect to a tyre recycling charge and does not hold information on the amount of money generated by such charges. However it informed the Committee that:

"Tyre retailers usually charge a customer a voluntary tyre disposal charge of £1 to £2 per car tyre. This would mean that potentially £1.8 million to £3.6 million could be generated by tyre retailers annually."

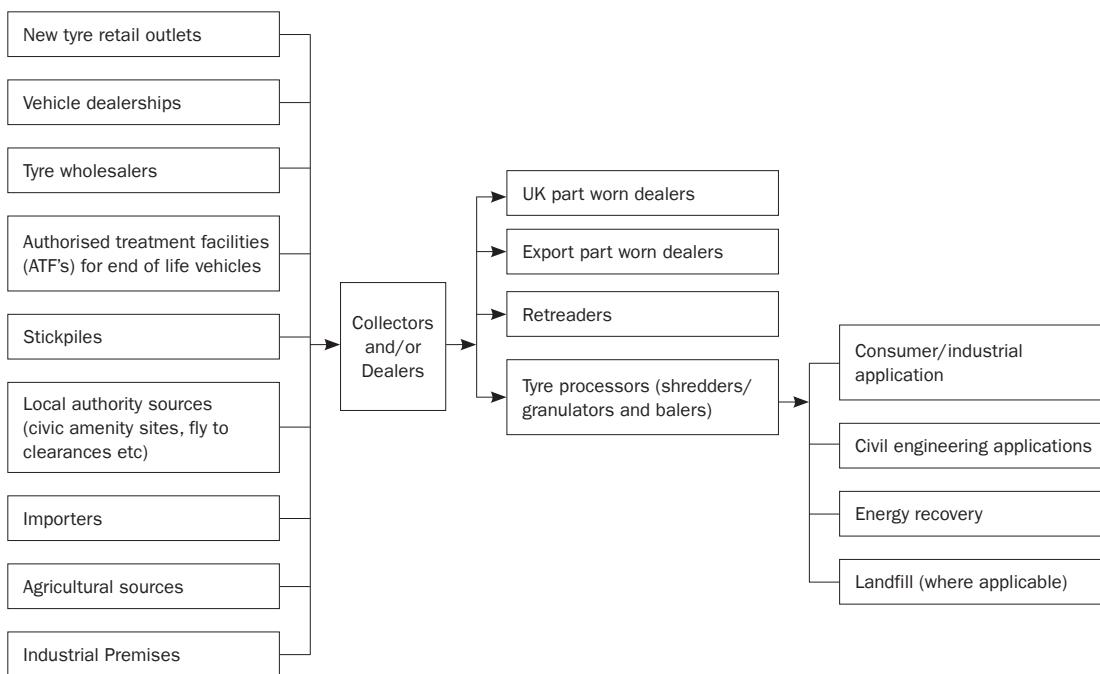
Many retailers display a separate line for a charge on their invoice but this is not obligatory. A collector will then charge a retailer for removing used tyres and taking them to a processor or other end user who is also likely to levy a charge, or 'gate fee' for disposal of the tyre. The Department suggests that collectors can charge the retailer 65p to £1 for removal and disposal of a used car tyre¹².

10 Northern Ireland Used Tyre Survey. Environment and Heritage (2000)

11 Bonfires: A Report by the Interagency Working Group on Bonfires. Environment and Heritage Service (2004)

12 DALO letter to Committee for the Environment, 18.11.11 Ref CQ/115/11

Simple waste tyre market material flow diagram¹³



A survey in 2007 on behalf of the Waste and Resources Action Programme (WRAP) carried out in association with the National Tyre Distribution Association (NTDA) found that environmental disposal charges and collection charges vary across the UK. In Northern Ireland the average disposal charge for car tyres is £1.22 varying from £1.00 to £1.25. The average collection charge for a car tyre is £0.97 varying from £0.80 to £1.10. However, across the UK the average disposal charge is £1.02 and the average collector charge is £0.79 indicating that the charges in Northern Ireland are higher than average and generally higher than all other areas of the UK except the South West of England.

Variation between regions would appear to be even greater for light commercial vehicles and Northern Ireland has the highest disposal and collection charges for tyres from these types of vehicles.

Most councils expressed dissatisfaction with the current system in place to trace and enforce the proper management of used tyres. They wanted to see NIEA Enforcement Officers having a much more proactive interaction with tyre distributors to ensure more effective auditing of the sale of new tyres and the storage and disposal of used tyres. It was acknowledged that this approach would have an impact on resources, but most councils called for these to be provided for better enforcement.

One council suggested that the entire supply chain should be monitored by those engaged in and benefitting from the trade through a system of statutory returns to a central authority. A Waste Management company suggested that NIEA should provide a public register of companies that have been issued a Waste Management Licence and those that are in breach of them and that this register should be kept up to date on at least a weekly basis.

A theme running throughout many responses was the need to focus resources on illegal activity rather than routine monitoring of organisations that were generally operating within the law and striving to meet compliance.

TRA is a UK-wide body that represents end-of-life tyre collectors and re-processors. It operates the tyre industry's Responsible Recycler Scheme which is "a unique best practice audit regime" covering around 80% of the total tyres arisings in the UK. The TRA scheme is based on a voluntary form of producer responsibility where everyone in the recovery chain

¹³ Waste Tyre Disposal and Collection Costs data. WRAP (2007)

starting with the new tyre manufacturer through to the retailer, the retreader and collector share responsibility. TRA maintains that this puts a generalised obligation on everyone at the end of the chain to ensure that all tyres are recovered in an acceptable manner.

TRA suggests this approach has advantages in the UK market because it is highly multi-branded with at least 200 brands of tyre in circulation at any one time. Their scheme has the ability to encompass everyone in the recovery chain. Whilst TRA acknowledges their scheme is not perfect, this is due to enforcement issues rather than flaws in the scheme itself.

Enforcement

All respondents to the inquiry raised the issue of enforcement and a key area of concern among many respondents was the weakness of the tyre carrier licensing system. One company described the waste transfer notification system as "farcical at best" saying that most waste tyre collectors operate in Northern Ireland with only a waste carrier's licence which can be obtained from NIEA with little more than a completed application form and the fee (currently £129 in Northern Ireland). There are no restrictions or assessments of capability or end use for the proposed materials, movement, treatment or disposal. Several organisations referred to the practice of rogue traders obtaining waste carrier licences easily and cheaply, undercutting competitors to collect tyres from dealers and fitters and then dumping the tyres or abandoning them in premises they had hired for a short period leaving it to the council or warehouse owner to deal with the consequences.

TRA reports that the Responsible Recycler Scheme now manages to achieve 95% recovery having introduced key elements of best practice. It audits its own members annually for regulatory compliance, site compliance and traceability. It then shares the results of its audits with the Environment Agency, thereby doing much of the Agency's routine work. This means the Agency can concentrate its resources on the rogue sectors of the market that need addressed. If TRA acquires intelligence it passes information on to the Agency.

While TRA accepted that the practice of rogue collection also happens in GB, it argued that if best practice was endorsed by all legitimate operators it would be stamped out. TRA suggested that bad practice was in part due to ignorance which could be addressed but that the remaining wilful element requires rigorous enforcement. It insists that not only is there a need for rigour in issuing permits, but once issued, their holders should be held to account.

Stakeholders suggested that under the current scheme in Northern Ireland there is no come-back on the retailer and they have tended to become detached from their obligations. Nonetheless, in practice, NIEA has prosecuted a tyre retailer for illegal tyre disposal and there are ongoing investigations into tyre storage and disposal¹⁴.

The Department itself informed the Committee that NIEA has found the Duty of Care approach to be an ineffective mechanism for tracking the disposal of waste tyres noting that:

"There are millions of waste transfer notes in existence at any one time and NIEA does not have the resources required to check every note and it would also result in a significant burden on the legitimate industry."

The Department also maintained that those acting illegally will not bother to complete transfer notes and it, along with other EU partners, is currently looking at developing an electronic data system which potentially make the tracking of tyres easier.

A tyre retailer giving evidence to the Committee suggested that the key to the problem was to introduce a tyre retailer operator licencing system. He maintained that all legitimate tyre retailers would be prepared to pay sufficient to run a fully cost recovered system.

¹⁴ DALO email in response to Committee query on 1 December 2011 on the number of prosecutions of tyre retailers – Appendix 2

Several operators within the tyre chain commented on what they perceived to be disproportionate enforcement. There was a feeling that despite adhering to their own strict operating procedures and NIEA guidelines they were targeted more frequently by the enforcement team than other less scrupulous businesses.

During its oral evidence session, the NIEA indicated that it is pursuing a number of cases involving illegal disposal of tyres. While this was largely welcomed, one council pointed out that the fact such enforcement plans were not known about highlights the communication gap that exists between councils and NIEA.

Many organisations suggested the Department should conduct a concerted and high profile communications campaign to highlight the value of recycling tyres and discourage their inappropriate use. NILGA suggested that this might be done through the Department's 'Re:think Waste' branding.

Mandatory marking schemes

Several councils suggested the Department should consider the introduction of mandatory identification of individual tyres to allow them to be traced throughout their lifecycle. The most common suggestion was that tyres should be electronically tagged or branded in a way that links them to the manufacturer and/or distributor. One council has actually introduced its own adaptation of this approach by marking tyres with spray paint so that they can be easily identified if they turn up inappropriately in future.

This scheme has worked well for that council but, by its own admission, it is time consuming and depends heavily on the dedication of staff to the scheme. The council also recognises a significant weakness in that, as none of the surrounding councils are operating a marking scheme, unmarked tyres can readily move into their jurisdiction across council boundaries.

However, individual tyre marking is not seen as practical within the tyre industry. Tyres already carry a considerable amount of information on them that is required by law and the current method is to include this on a label that is removed when the tyre is brought into service. There is an ongoing challenge to find glue strong enough to adhere to a tyre but allow removal when required and labels frequently come off in transit. The industry comments that there is nothing currently that stays on a tyre for life that would attach it to whoever is distributing it at a particular point.

In addition, if tyres were individually marked there would need to be an easy way to read the information automatically; a 40ft trailer carries 1,200 tyres. The industry suggested that an individual identification mechanism might emanate from current studies into tyre-wear indicators which have become the subject of European law to avoid fuel wastage by driving on half inflated tyres. However, they do not believe this will lead to anything being incorporated into the actual tyre in the near future.

Conclusions

The current voluntary 'Duty of Care' system is not working well. Levies charged by retailers in Northern Ireland are generally higher than those charged elsewhere in the UK. There is no audit trail, presentation of the charge on invoices is variable and there is no information that allows the customer to know how the charge is being used.

Obtaining licences to carry tyres legally is too easy and the Department does not have the resources to conduct sufficient checks prior to them being issued or carry out compliance checks afterwards.

Rigorous enforcement of the used tyre waste stream is the key to successful management of used tyres in Northern Ireland. This will require adequate resources.

Tyre marking systems appear attractive however the impracticalities of them as a mechanism for driving the proper management of used tyres across Northern Ireland could mean they are

unlikely to feature in the near future. However, a simple marking scheme worked well at local level and should be encouraged as one of a number of tools to address the problem of fly tipping and burning of tyres in local areas.

A tyre retailer operator licencing system might be worth giving further consideration but members remain to be convinced that smaller operators would be able to afford such a scheme and had questions about garages who offered tyre changing services but whose main income was obtained from other services.

There's a need for more and better communication from central government on disposal of used tyres in general and licenced and unlicensed operators in particular.

Recommendations

- The Office of Fair Trading should be asked to investigate discrepancies between the levies charged by retailers under the Duty of Care system in Northern Ireland and those in the other regions of the UK
- NIEA should conduct compliance checks before issuing Waste Carrier Licences and should monitor the holders afterwards increasing the cost of the licence to cover this if necessary
- NIEA should publish on its website lists of currently licenced re-processors and those in breach of their licence and update it weekly
- The Department should conduct a communications campaign through its 'Re:think Waste' brand to highlight the value of recycling tyres

Comparison of the Northern Ireland approach to managing used tyres with other approaches

There are three different systems in place across Europe for managing end-of-life tyres:

- Producer responsibility
- Tax system
- Free market

Producer responsibility

The majority of EU countries operate under a producer responsibility system where the manufacturer of the tyre is responsible for managing end-of-life tyres. This usually operates through a collection system requiring the manufacturer to collect the same number of tyres they have produced. Research suggests this system appears to be the most economical way to achieve a 100% recovery rate. For the end user it guarantees transparency through invoices at each stage. Countries using this system include Belgium, the Czech Republic, Finland, France, Greece, Hungary, Norway, Netherlands, Poland, Portugal, Romania, Spain and Sweden.

In the 13 countries that currently operate a producer responsibility system the collection and recovery of end of life tyres is usually carried out by not-for-profit companies financed by tyre producers.¹⁵ The membership of such a company usually includes the national manufacturers and the main importers. In Europe, these end of life management companies are mandated to collect and organise the treatment of an equivalent amount of tyres sold collectively by these companies.

In Sweden, producers are responsible for the collection and disposal of waste tyres. The Swedish Tyre Recovery Association is a producers' responsibility organisation which is obliged

to report to the Swedish Environmental Protection Agency on the amount of tyres collected and treated. They collect and publish data about the treatment of scrap tyres.¹⁶

In Hungary, tyre waste sites are being taken over by companies which recycle tyres into other rubber products.¹⁷

A number of respondents to the Inquiry suggested that a producer responsibility approach should be adopted in Northern Ireland. Some felt this could be done along the same principles of the Waste Electronic and Electrical Equipment (WEEE) Directive where producers of electrical goods, such as washing machines, televisions and batteries, are obliged to facilitate their disposal. However, in a producer responsibility system the number of waste collectors would be drastically reduced. Currently in Northern Ireland a number of waste collectors are in operation and most of these would go out of business if a producer responsibility system was introduced.

One Waste Management Group suggested that the main weakness with the current free market system is the lack of meaningful linkage between production, retail and end treatment/disposal. It suggests that applying a system that correlates to the principles of producer responsibility would strengthen this linkage and facilitate a more cost effective and fairer method of control, pointing to its success with other waste streams, such as End of Life Vehicles and Batteries.

Another Waste Management Group and NILGA suggested that the Department should introduce producer responsibility for tyres under Article 8 of the revised Waste Framework Directive (Directive 2008/98/EC). It believes the industry should be given the overall responsibility for managing tyres that are fly-tipped or dumped illegally. It argues that this would reduce the need for public bodies to pay for their management and could make more resources available for additional recycling initiatives.

However the manufacturers and TRA maintain that this approach would not be feasible in a market with over 150 brands, “*The traceability of individual tyres is just too difficult*”, according to Bridgestone Tyres.

Tax system

Denmark, Latvia and Slovakia operate a tax, or levy, on tyre production which is used to finance recovery and recycling of used tyres. The cost is passed on to the customer.

Free market

In a free market system the legislation sets objectives but does not define how these are to be met. All operators in the tyre recovery chain are required to act in compliance and companies may co-operate on a voluntary basis to promote best practice. Countries using this system include Austria, Germany, Switzerland, Ireland and the UK.

It was noted by some respondents that the free market system worked well when the economy was thriving but is likely to deteriorate in an economic crisis as outlets disappear.

In the UK tyres are recycled to make a number of products such as for use in engineering, as an export material, or can be sold as retreads or part-worn tyres.¹⁸ The TIF's Responsible Recycler Scheme was established in 2001 and is a voluntary scheme which ensures its member companies re-use, recycle or dispose of scrap tyres in an environmentally responsible way. The scheme is responsible for the majority of used tyre collections in the UK

16 Swedish Environmental Protection Agency Quality Report (2008) http://www.naturvardsverket.se/upload/06_produkter_och_avfall/avfallsstatistik/avfall-sverige-2008/kvalitetsdoku.pdf

17 MeWa (2007) ‘From used tyres to Rubber Powder’ http://www.mewa.recycling.de/fileadmin/user_upload/PDF/MeWa_News_1207_E_I.pdf

18 Public Service Review (2006) ‘Driving Tyre Recycling Forward’ http://www.publicservice.co.uk/article.asp?publication=Central%20Government&id=216&content_name=Waste%20and%20Recycling&article=5705

but has only two Northern Ireland members. Those who subscribe to the scheme are subject to a stringent audit process conducted regularly by independent environmental specialists.¹⁹

TRA argues that this approach works well in a heavily multi brand market with some 150 brands in circulation at any one time. However it stresses that whatever approach is adopted, it cannot work without effective enforcement. TRA would like to see more engagement in the Responsible Recycler Scheme from the retail tyre trade in Northern Ireland as it believes that the traceability element of the scheme would help expose any cross-border movements of waste tyres.

The Committee sought additional research on producer responsibility systems operating in other European countries which were also likely to be heavily multi-branded. In Portugal a non-profit organisation has established a Used Tyre Management Integrated System that traces responsibility from when new or used tyres are brought into the country to their end-of-life destination. The organisation is funded by an 'Eco-value' charge which is levied on every tyre sold. There are 1,288 tyre producers registered with the organisation and include manufacturers, importers and second hand dealers.²⁰

In France tyre distributors are required to take back, free of charge, a similar quantity and type of used tyres to that sold in the previous year. Tyre distributors are defined as those that sell tyres or vehicles equipped with tyres. Producers can group together to fulfil this duty and a single company contracted by 240 producers has been created to do this, largely funded by a cost on each new tyre sold.²¹

In the Republic of Ireland under the Waste Management (Tyres and Waste Tyres) Regulations 2007, wholesalers and retailers must use authorised waste collectors to take away waste tyres and provide details of tyres taken back and transferred to authorised collectors. These collectors are required to report on the quantities of tyres taken and to acquire 'Certificates of Recovery' from recyclers, retreaders, remoulders or any other recovery operators to show that tyres have been dealt with properly. Legislation also requires that all tyre suppliers and collectors register with an approved compliance scheme or with the local authorities.

TRACS²² is a not for profit company that came into operation in January 2008 following the new Waste Management Regulations in the Republic of Ireland. It is a self-funding, voluntary compliance scheme for tyre industry operators to monitor the movement of tyres within the industry and promote legitimate reuse and recycling of waste tyres. It provides a verifiable audit trail for the proper supply of new tyres and the management of used ones. By joining TRACS, tyre industry operators, suppliers and waste collectors will fulfil their obligation under the Regulations.

TRACS can account for 90-95% of the total units imported by its producer members; 52% of its retail/ replacement fitter members, although in practice TRACS suggests this is 60-65% and 80% collection of units by its waste collector members (Appendix 2). Its membership includes 100% of manufacturers, 90% of distributors, 63% of retail outlets, 60% of wholesalers and 46% of waste collectors.

A second compliance scheme, Tyre Waste Management (TWM), was approved for the Republic by the Minister of the Environment in accordance with the Tyre Waste Regulations in 2009 as a viable alternative to TRACS and local authorities. TWM is committed to making compliance as easy as possible and reduce the amount of commercially sensitive information that

19 Tyre Recovery Association <http://www.tylererecovery.org.uk/page/about-the-tra/the-tyre-industry-federation-responsible-recycler-scheme/>

20 Information from Valorpeu. Available at: <http://www.valorpeu.pt/default.sapx?lang=ing>

21 Information from Aliapur. Available at: <http://www.aliapur.fr/>

22 http://www.tracsireland.ie/images/stories/doc/tracs_annual_report_2009.pdf

needs to be disclosed.²³ Cost of membership and membership numbers do not appear to be available on the website.

TRACS informed the Committee that the Department of the Environment, Community and Local Government (DECLG) is commencing a review of all waste streams that have producer responsibility initiatives around them. This will include TRACS even though it is not a full producer initiative scheme as they do not dictate what waste collectors do.

TRACS believes enforcement needs to be stronger than it is at present and that even self-regulating schemes do not do away with the need for enforcement. DECLG has the overall policy responsibility for waste tyres in the Republic but it is local authorities that enforce the regulations. As a result there can be variability between counties according to local priorities. TRACS maintains that tyres rarely seem to be high on the list of council waste priorities although there have been some prosecutions in Kilkenny and Mayo. TRACS gives the local authority a monthly list of the economic operators and tells the authority whether those operators are in TRACS or not. This ensures that if the local authority decides to look at tyres with a view to enforcement, it has a list of people in the county who it can audit for compliance.

Cross border implications

Some respondents drew attention to the risks that would arise if two different systems operated north and south of the border. If a full producer responsibility scheme was introduced in the Republic of Ireland the cost of tyres would be increased to pay for it and this would make tyres in Northern Ireland appear cheaper as a result. Also, as producers would only be responsible for tyres in the Republic of Ireland, many tyres would be reported as coming from Northern Ireland.

The other impact of differential systems would be the impact on government revenue. If a tyre is moved from Northern Ireland to the Republic of Ireland to someone who has a VAT number, the VAT is not collected because both are in the EU. If that tyre is then sold for cash there would be no record of it so the government would lose out, effectively creating a black economy.

The tyre manufacturer, Bridgestone, stressed that multinational companies will cooperate and comply with any government or local authority where they operate and they accept they can do little about currency fluctuations or competitive pricing in retail. However if there are artificial factors, such as different compliance schemes, local operators will become disadvantaged on either side of the border for various reasons. Consequently, it would recommend cooperation and a similar scenario on both sides of the border.

Conclusions

The Committee concluded that simply allowing the free market to operate is not a dependable way of ensuring the proper management of used tyres in Northern Ireland even when the necessary legislation is in place. Its success is reliant on global markets and can be particularly vulnerable to failure during an economic downturn. Voluntary self auditing schemes can work well for the majority within an industry willing to participate and can free up resources for enforcement bodies to focus on illegal activity. However, they do not do away with the need for effective enforcement.

The system appears to work better across England, Scotland and Wales where, an industry body, TRA, has introduced a best practice audit regime that has embraced a significant proportion of tyres arising. This allows the enforcement body, the Environment Agency, to focus its resources on illegal activity. Although TRA encompasses the whole of the UK it has only two members in Northern Ireland and several organisations indicated that the enforcement body, NIEA, spends much of its time monitoring organisations that are operating within the law or striving to be compliant.

The Republic of Ireland also allows the free market to operate but the big difference between it and the UK is that it requires anyone operating in the tyre industry to be registered with and submit data to an approved compliance company or the local council. The compliance scheme TRACS appears to account for much of the tyre activity in the Republic but with the advent of an alternative scheme, TWM, that does not appear to publish its membership nor gather statistics on the tyres within its scheme, this is no longer possible to verify.

The argument that a producer responsibility scheme would not work in a heavily branded market is not borne out by experiences in other European countries. However, it would be essential to ensure that all tyre producers, including retailers, importers and second hand dealers and car dismantlers, were included in the definition of those required to comply.

The introduction of a strict producer responsibility scheme could address many of the problems in Northern Ireland and should be considered in the longer term. However, as such a scheme could be counterproductive if introduced only on one part of the island of Ireland Northern Ireland should liaise closely with the Republic of Ireland when developing such a scheme. In the short term requiring manufacturers, retailers, carriers and recyclers to register with a compliance scheme would be a more effective approach and should make it easier to identify and address illegal operators.

Recommendations

- Northern Ireland should liaise with the Republic of Ireland when considering a suitable mechanism for dealing with used tyres. A strict producer responsibility scheme would be counterproductive unless introduced in both jurisdictions
- In the longer term, Northern Ireland should consider the introduction of a strict producer responsibility scheme but the nature of such a scheme and its timing should be developed in close liaison with the Republic of Ireland as indicated in the previous recommendation
- In the short term, the Department should require all sectors in the used tyre chain to register with a compliance scheme to enable it to be more proactive in the tracking and enforcement of tyres including the auditing of retailers
- NIEA should regularly participate in the UK-wide Used Tyre Working Group

Number of used tyres arising annually in Northern Ireland

Several councils provided data on tyres collected within their jurisdiction which are summarised in the following tables:

Council	Total tyres collected	Individual cases
Ards Borough Council	No routine data collected	1000 tyres at one bonfire site and circa 300 between 2 other sites
Strabane Borough Council	100-150 per annum on bonfire sites	
Fermanagh District Council	Circa 1500 tyres forwarded to contractor for recycling 2010/11 – 11.34 tons collected by council	
Belfast City Council	April 2010-March 2011 – 1416 illegally dumped tyres (12.5tons)	
Antrim Borough Council	2010 – 360 tyres 2011 – 307 tyres to date	

Council	Total tyres collected	Individual cases
Lisburn City Council	2010/11 – 2284 car, 21 light truck, 16 truck tyres disposed at Amenity site	300+ collected from a bonfire site
Larne Borough Council	July/Aug 2010 – 6.52tons (395 tyres) July/Aug 2011 – 7.8tons (690 tyres)	
Derry City Council	June/Jul/Aug 2011 – 1816 car tyres, 25 truck tyres and 3 tractor tyres	
Magherafelt District Council	No routine data collected	Over 100 tyres collected from 1 site in 2011
Newry and Mourne District Council	No routine data collected	Halloween 2006 – 4400 tyres removed at a cost of circa £21000
Estimated total tyres	8983	6100

Some councils were able to give numbers or weights for all tyres collected in certain years while other gave typical examples of the number of tyres that had arisen from a single incident.

The Waste Management Group, SWaMP, provided more exact data for the tyres arising within its councils between 2004 and 2009. These are presented in the following table.

Number of tyres collected and recycled by constituent councils of SWAMP2008

Council	Cars (includes rim removal)	Other (includes trucks, agricultural vehicles, forklifts and tubes)
Armagh	1270	307
Banbridge	12734	463
Cookstown	20350	247
Craigavon	2054	942
Dungannon	123	0
Fermanagh	5748	611
Newry	21428	1323
Omagh	184	73
Total	63891	3966

The Research Group, DEPOTEC, reported in its response that Europe produces 2.2 million tonnes of waste tyres per year. Newline Waste Solutions stated that the UK produces 450,000 tonnes of waste tyres per year and they estimate this to be increasing. In 2000 the Department estimated that Northern Ireland generates approximately 16,000 tonnes of waste tyres per year.²⁴ TRA concurred with this estimate but stressed it is not possible to assess cross-border flows. This contrasts to the organisation PPP Tyre Recycling, which suggests that Northern Ireland produces 15,000 tonnes of waste tyres per year.

The Department's survey in 2000 produced a predictive model estimating that the quantity of used tyre arisings would be likely to increase at a rate of 1% each year. The following table

shows the projected tyre arisings in each of the three waste management areas based on this assumption.

Projected tyres arisings for the three waste management areas in Northern Ireland

Year	Arc 21 (tonnes)	SWAMP 2008 (tonnes)	NWRWMG (tonnes)
2005	9,448	3,345	2,337
2010	9,935	3,515	2,458
2015	10,449	3,693	2,584
2020	10,984	3,881	2,716

The average number of tyres recovered per year in the SWaMP region between 2004 and 2006 is 13,571 which equates roughly to 126 tonnes.²⁵ This suggests an approximate recovery rate of slightly less than 4% of the predicted arisings in 2005.

In 2008 NIEA recorded that 30,172 tonnes of rubber wastes, mainly end-of-life tyres, were generated but only 5,224 tonnes (17%) were recovered. This still falls well short of the recovery targets set by the Department in its Waste Management Strategy for Northern Ireland 2000 of 100% by 2010.²⁶ The Department currently provisionally estimates from previous surveys and Assembly Research papers, that approximately 1.8 million tyres are currently generated annually in Northern Ireland.²⁷

Some respondents noted that due to the economic climate there has been an increase in the part-worn tyre market with more tyres being imported from mainland Europe. These tyres will need to be changed more frequently thereby increasing the quantity of waste tyres to be managed. Some also pointed out that as farm practices move away from silage clamps to round bales, fewer used tyres will be utilised on farms, further contributing to the volume of waste tyres.

The Northern Ireland Housing Executive responded to the Committee Inquiry stating that it had recorded the removal of 500 tyres from its property in the Lower Falls/Ballymurphy areas at a total cost of £2500+VAT. However, it stressed that it removes tyres as part of its general clean up after bonfires but does not specifically record details of the materials.

It was acknowledged by a number of respondents that tyre arisings in the Republic of Ireland could impact on Northern Ireland. Data from the Central Statistics Office suggest that the total tonnage of tyres imported in 2009 was 27,759. The TRACS Compliance Scheme, which tracks and reconciles the movement of tyres and waste tyres in the Republic of Ireland, estimates that this has risen to 30,322 tonnes of tyres in 2010.

During the course of the Inquiry the Committee asked the Northern Ireland Fire and Rescue Service (NIFRS) to quantify the costs of tyre fires with which they had to deal and they provided the following information:

Financial year	Incidents Attended	Average cost per incidence (£)	Total estimated cost (£)
2006/07	174	2,225	387,150
2007/08	218	2,339	509,902

25 Departmental written submission 22.09.11 (16.1 tonnes = 1.74 million tyres approximately.)

26 <http://www.doeni.gov.uk/niea/niwms.pdf>

27 DALO letter to Committee for the Environment, 18.11.11 Ref CQ/115/11

Financial year	Incidents Attended	Average cost per incidence (£)	Total estimated cost (£)
2008/09	210	2,570	539,700
2009/10	180	2,693	484,740
2010/11	215	2,521	542,015
2011/12 ²⁸	102	2,521	257,142

NIFRS also noted that this includes 2 major incidents in 2009/10 that cost approximately £106,000 and £229,000.

Conclusions

The Committee concluded that there is a high but unknown volume of used tyres arising in Northern Ireland throughout the year. Current Departmental estimates based on previous surveys and Assembly Research papers suggest it is in the region of 30,000 tonnes per year or 1.8 million tyres, nearly double the amount in 2000. Indications are that only 17% of this is actually being recovered.

It is clear that significant amounts of used tyres are not being disposed of in a way that meets legal and environmental obligations and while estimates suggest this might be improving it would still seem to be well below the target of the 2006-2020 Waste Management Strategy.

While according to evidence submitted by council appears to suggest that incidences of tyres being burnt on bonfires has declined over the last few years, indiscriminate small-scale fly-tipping of tyres appears to be on the increase in most counties.

Inappropriate handling and storage of waste tyres not only harms the environment but results in considerable costs for land owners, councils and rescue services.

Recommendations

- The Department should establish a robust method of quantifying the amount of waste tyres arising in Northern Ireland on an ongoing basis with a clear current indication of what proportion of these is not recovered and utilised in a proper manner
- The Department should require public bodies to quantify and report the number of waste tyres found on their property before making arrangements for their disposal

Extent of historical stockpiles of used tyres in Northern Ireland and consideration of how these could be incorporated into the established process for managing used tyres

General

Comparatively little evidence was presented to the Committee about stockpiles. The legal framework for storage in Northern Ireland is outlined through a licensing or permitting regime with NIEA being the competent regulatory authority.

The TRA did not provide any information on the size and significance of end of life tyres in Northern Ireland. However, it suggested that most stockpiles of tyres have been eliminated in Britain over the past decade with the help of initiatives by local authorities and the Environment Agency.

Some responses stressed the importance of better enforcement of tyre storage premises with a suggestion that all such premises should be required to submit an annual report to the enforcing authority.

Several councils reported experiences of tyres being held in storage for use on bonfires at certain times of year, but most felt this practice was decreasing due to various initiatives and none reported it to be increasing. Where problems persisted they tended to be associated with bonfires that do not wish to participate in council schemes. Belfast City Council suggested that several thousand tyres a year may be burned in their jurisdiction and in 2011 in excess of 300 tyres was counted at one site.

NILGA drew the Committee's attention to the fire risk associated with large illegal stores, referring to two fires that took place in 2009. NILGA noted that one of the sites involved had a licence to store tyres but had greatly exceeded its permitted volume while the other had no licence. Apparently NIEA had been in the process of taking enforcement action at the time of the fires. NILGA suggests a public register should be provided for suspension notices of firms which are in breach of their licenses, in addition to the register of licensed firms.

TRACS believes that stockpiles in the Republic of Ireland are being reduced.

During the course of the Inquiry a newspaper article²⁹ exposed what it thought to be hundreds and thousands of illegally dumped tyres in the Donegal hillside indicating that illegal dumping is still an ongoing pressure and that the border provides opportunities for tyres to be more readily disposed.

The Republic of Ireland's Environmental Protection Agency reported to the Committee that in 2009 five local authorities reported illegal tyre storage operations although some of these were associated with permitted premises. The quantity of tyres stored illegally was estimated at 10,000 tonnes and enforcement actions are underway by the local authorities.

NIFRS informed the Committee that responding to tyre fires has a significant impact. They advise that there are two types of fire; large resource intensive fires within industrial / commercial undertakings and, more common, the setting alight of tyres which have been dumped. NIFRS attended an average of over 180 fires involving tyres each year. Of the 180 incidents in 2009/10 it attended two major incidents that cost approximately £106,000 and £229,000. NIFRS believes that tighter regulation is required around the most appropriate storage of tyres for disposal coupled with measures taken to prevent arson and increased enforcement requiring tyre suppliers to ensure controlled disposal of tyres for recycling or destruction.

Farming

The Ulster Farmers Union (UFU) states that the small percentage of used tyres remaining on farms covering silos are covered under the Duty of Care Regulations. These apply to all businesses handling tyres making them legally responsible to ensure waste tyres are disposed of legally. This requires farmers to keep storage areas secure so that tyres may not be removed by unauthorised individuals and to use registered carriers to remove or dispose of tyres. Farmers must be able to produce waste transfer notes to document removal of tyres from premises showing a legal disposal route. UFU considers the legislative requirements covering used tyres on farms to be sufficient and operating effectively.

UFU also notes that registered carriers to remove tyres are hard to find and that those that do exist tend to be expensive. They suggest that NIEA should compile a list of currently registered carriers and display it on their website, similar to registered removers of asbestos.

Several organisations including NILGA and a Waste Management Group acknowledge that historically tyres have been stockpiled on farms for agricultural activities like sealing silo pits.

However, as more farms are moving towards round bale silage there is a decreasing need for tyres on farms.

The Committee requested additional research on the volume of tyres a farmer is allowed to keep on the farm before requiring a waste management licence. It was informed that Exemption 17 of the Waste Management Licensing Regulations (Northern Ireland) (2003), as referred to previously in this Report, enables a farmer to store 250 tyres providing they are kept separately from other waste and are kept on the farmer's own land or land that has the consent of the occupier.³⁰

Farmers who had tyres on their premises prior to December 2003 are not required to have either a waste management licence or an exemption but any new tyres brought onto the farm after this date will require one. An exemption currently costs £785 for 3 years.³¹

In the Republic of Ireland farmers are obliged to register with TRACS and provide their herd number when they receive tyres from an authorised collector. The scheme limits farmers on the number of tyres used per square meter of silage pit floor area and on the number of waste tyres on their farms. In 2009 TRACS reported that 156,974 tyres were provided to farmers by Waste Collection Permit holders.

Conclusions

The evidence provided to the Committee by councils suggests that stockpiling of tyres for, and their use on, bonfires is declining due to proactive initiatives by councils and community groups and no longer presents the major risk associated with tyres. Nonetheless councils that still have evidence of such practices should continue with their endeavours to minimise if not eliminate them and NIEA should be supportive in this task.

A much more significant risk would now appear to be fires at large stockpiles of tyres. Some of these have arisen from illegal collection of tyres for financial gain from the collection fee while others appear to result from used tyres backing up on licenced premises due to fluctuation or failures in the end-use market. Two such fires had to be dealt with at huge cost to the tax payer in 2009 and also introduced significant health risks to local residents in the surrounding areas.

The market for used tyres is global and can be affected by factors well outside the control of Northern Ireland, the UK or even Europe. For example, the tyre recycling company OM Recycling reported that the global recession affected the sale of equestrian surface product made from recycled tyre rubber and tyres destined for use as Tyre Derived Fuel in Japan was hampered due to the earthquake in February 2011.

This must be taken into account by the enforcement authority when making decisions such as definitions of end-of-waste and tyre holding capacity. There would appear to be little consistency in the definition of what does and does not constitute end-of-waste. Decisions made by the responsible authorities within the UK (EA, SEPA, NIEA) would appear to differ let alone other countries of and beyond Europe. There would also appear to be reluctance among the authorities to decide in advance whether or not a product can be defined as a waste until such time as a company has put in a request to be licenced to produce and market it as such.

While it would not be necessary for farmers to register with a compliance scheme, farmers should be required to record the number of used tyres held on their farm on their annual IACS return.

30 Agricultural Waste Guidance, Northern Ireland Environment Agency, August 2003, page 7

31 Waste Management Charging (Northern Ireland) Scheme 2011, Fees and Charges for Exemptions, NIEA

Recommendations

- All tyre depots should be required to submit an annual report to NIEA
- NIEA should publish on its website a list of licenced waste carriers and update it on a regular basis
- The Department should conduct adequate policing of tyre depots to ensure all tyres are accounted for
- Farmers should be required to record the number of tyres held on their farm on their annual IACS return

Potential for the development of an environmentally sound, economically viable and self-sustaining end-use market in Northern Ireland (including the consideration of alternative uses for used tyres)

A research paper provided to the Committee suggested a range of uses for used tyres. In general terms the fate of used tyres in the UK is recorded by DEFRA as re-use, export, re-treading, material recovery and energy.

However, more specific uses for used tyres include:

- Landscaping – landscape paving, walkways, porous piping
- Horticulture – mulches, composting, drainage infill
- Construction – roof tiling, acoustic barriers, waterproof membrane
- Transport – traffic management, automotive parts, rubberised asphalt
- Home and Garden – carpet underlay, footwear, coasters
- Facilities Management – safety flooring, matting, industrial sealers and fillers
- Sports and recreational – artificial sports tracks and surfaces, sports barriers, golf and bowling greens (drainage improver)

The Research paper also identified a number of advantages presented by incorporating recycled rubber from tyres into a range of products. These are summarised in the following table:

Product	Advantages
Artificial sports pitch	Lower maintenance costs More consistent surface Greater longevity of pitch Decreased downtime of pitch
Pathway surface	Lasts 20 years + (= Tarmacadam) Patching and re-levelling easily achieved Laid cold without generating noise or smell Prepared in advance away from site so minimal disruption
Shore protection (tyre raft)	Long term stability Replaced aggregate Laid with unskilled labour Prevented further loss of shoreline to erosion

Product	Advantages
Horticultural mulch	Stable – weather slowly Inert – do not absorb water or nutrients Low maintenance Protects from falls
Construction blocks	Thermal conductivity and noise insulation properties enhanced Improved freeze/thaw resistance Increased impact resistance (Note – compressive strength is reduced and high quality rubber chip required which increases cost)
Tyre bales in an embankment	Build costs significantly lower than brick equivalent Concrete bricks and mortar replaced thereby reducing carbon footprint and pressure on virgin quarried material
Tyre crumb for street furniture	Lightweight so reduce transport and handling costs Last 10-15 years and do not require routine maintenance Withstand collisions (Note – more expensive)

A study commissioned by WRAP in 2008³² suggested that by 2015:

- The tonnage of tyres sent for retread and reuse will remain fairly constant with a reduction occurring in the export and landfilling engineering market.
- The recycling industry is likely to grow as demand for rubber for use in road surfacing or construction increases and as new and emerging technologies such as cryogenics come into the market.
- Energy recovery through burning tyres in cement kilns will remain strong due to a continued need for more environmentally sound alternative fuels.

Most organisations that commented on this aspect of the Inquiry suggested government needed to focus on developing end markets so that it becomes advantageous for all used tyres to be disposed of properly. OM Recycling called for the establishment of a public body to work with the private sector to develop domestic outlets within Northern Ireland. They also called for broader interpretation of the legislation to encourage more creative solutions. R4 Recycling suggested that Invest NI could provide more support and UFU pointed out that there are currently barriers to achieving a competitive waste industry in Northern Ireland such as planning and banks. All urged government to help nurture a competitive waste industry that reinvents and makes use of waste streams such as waste tyres.

One recycling organisation told the Committee that it had identified a number of uses for waste tyres but all of them had proven uneconomic due to the undercutting of the disposal fee by retailers. They stressed that there are fine margins within tyre collection and recycling and it would require greater regulation within the industry before many end uses would become viable. Much of the equipment required to recycle tyres into these products is highly specialised and expensive, requires regular and expensive servicing and has high fuel/running costs. These factors combined with the need to secure suitable licenced premises to carry out their activities, mean recycling companies have to be confident they will be able to operate without being undercut by those operating without the necessary licence.

The Committee requested additional information on the current capacity for recycling and reprocessing tyres in Northern Ireland and was informed that it is limited currently to only two companies in Northern Ireland,³³ both of which the Committee visited.

The Department informed the Committee that there are few cost effective treatment options available in the UK for recycling and recovery of waste tyres and that the current problems with tyres have to some extent arisen because the waste tyre industry is extremely volatile and susceptible to market change.

WRAP has produced two specifications for waste tyres; British Standards Institution's Publicly Available Specifications, PAS 107, for crumbed tyres and PAS 108 for baled tyres. Unlike the rest of UK and the Republic of Ireland, these two standards have not been approved for use in Northern Ireland, but the Department points out this would not affect regulatory arrangements or confer end of waste status anyway.

NIEA has been reviewing these PAS specification with a view to producing protocols for baled and crumbed tyres, but say there is insufficient data to conclude with confidence that baled tyres do not pose a long term threat to the aquatic environment.

As mentioned previously, the delays by NIEA and inconsistency with the position in the rest of the UK and the Republic of Ireland are frustrating for recycling companies operating within Northern Ireland.

A number of organisations presented ideas for dealing with end-of-life tyres.

The Committee requested further information on the interpretation of End-of-Waste criteria in relation to tyres in other parts of the UK, Ireland and other EU member states.

In England and Wales, the Environment Agency has published a Quality Protocol in relation to tyre-derived rubber material setting out criteria for its production and use. If these are met tyre-derived rubber materials will normally be regarded as having been fully recovered and to have ceased being waste.³⁴ A Quality Protocol for tyre bales is being prepared but is not yet published so baled tyres are still considered as waste. However, the Environment Agency has set out how tyre bales may be used in civil engineering projects and landfill operations in England and Wales and has stated that it will continue to support the use of tyres bales where it will discourage the use of virgin materials.³⁵

Scotland also provides an exemption for tyre bales to be used for various civil engineering works and community facilities provided they are bales in accordance with PAS 108³⁶ but remain waste until an end-of-waste case has been made to the SEPA.³⁷

Similarly in Ireland, tyre bales can be used according to various criteria, but remain subject to waste authorisation as they are still considered waste.

The information provided on practices in other European countries suggests that there is very little specific legislation for tyres and tyre bale recycling but this could have changed since 2006.³⁸

33 Research and Information Service Briefing Paper NIAR 183-2012, 22 March 2012

34 WRAP and Environment Agency, Tyre-derived rubber materials Quality Protocol

35 Environment Agency, Regulatory Position Statement, Use of PAS 1081 tyre bales in civil engineering and landfill infrastructure works

36 Waste Management Licensing (Scotland) Regulations 2011

37 SEPA, Inspection criteria for the shipment of tyres

38 WRAP (2006) Research on Legislation, National and International (ISO) Standards and Best (Industry) Practices for Tyres and Tyre Bale Recycling

Retreads

Several organisations told the Committee that advances in computer technology have enabled retreads to be produced to a much higher quality standard that can outlast cheaper new tyres by 3:1.

However, in Northern Ireland, purchase of retreads is still relatively low at 15% compared to 30% in England and across Europe as a whole and 50% in the US. Each retreaded truck tyre saves 23kg of oil and 18kg of steel, greatly reducing the environmental impact of tyre production.

One organisation suggested that local councils would benefit from purchasing retreaded tyres.

Cement kilns

Cement kilns also offer a potential outlet for waste tyres. However prior to burning in a cement kiln tyres must be chipped to a consistent 50mm, clean cut and shredded. As a result kilns can find it hard to obtain a ready supply of tyres meeting the specification. The Republic of Ireland currently has one facility authorised to burn tyres but it has not been able to find a tyre processor who can consistently meet the required specifications. A second plant is seeking consent but is still awaiting approval.

Incorporation of tyre bales into concrete blocks

A tyre recycling facility in County Laois has been issued with a permit to handle up to 10,000 waste tyres per year turning them either into a tyre bale that can be used in engineering fill applications or a lower quality tyre bale that is used as a void-former in precast concrete blocks to be used in retaining walls.

Crumb rubber manufacture

Crumb rubber is produced from used tyres through the use of mechanical processes such as grinding and shredding, compaction or granulation. It produces 'eco-innovative' products for use in agriculture, horticulture, construction, childcare, equestrian, leisure, golf and sports. It also produces a number of by-products such as recovered steel, fibre and rubber dust.

Crumb Rubber Ireland Ltd. is the only facility on the island of Ireland producing a full range of rubber granulate and matting products. It sources used tyres from across the island but informed the Committee that the illegal stock piling of tyres in both jurisdictions creates difficulties for it when sourcing tyres. The organisation maintains that the free market approach to the end-of-life management of used tyres in Northern Ireland and the Republic of Ireland has not worked and even suggests that it incentivises activities such as the illegal stockpiling of tyres. It suggests that the introduction of a producer responsibility initiative both north and south of the border is the only way to address illegal movement of used tyres between both jurisdictions.

Depolymerisation

Several organisations wrote to the Committee promoting depolymerisation-type technology, in particular pyrolysis. Depolymerisation is the chemical conversion or breakdown of organic compounds by heating in the absence of oxygen. Tyres going through this process are broken down into oil, steel, carbon powder and gases. These products produced have a retail value and there is no waste produced in the process.

The Committee met a research group that is in the process of looking at depolymerisation technology for used tyres. Based in Cork, the project aims to design, plan and construct a demonstration plant for the depolymerisation of used tyres that is able to recycle a significant quantity of waste tyres per year and be financially viable on the basis of its by-products. The project aims to demonstrate the future viability of mainstreaming the process.

The research group, DEPOTEC, informed the Committee that the process is proven technology but its success is dependent on economic factors such as the price of energy, security and location of supply and operating costs. They also noted that legislation can also affect the long term viability of the process and suggested that:

- Legislation should ensure that end-of-life tyres can only be disposed of through authorised / certified disposal routes.
- Legislation should govern the operation of end-of-life transporters, sorters, storage facilities and processing facilities.
- Legislation should recognise end-of-life tyres derived products as alternative energy sources or secondary raw materials with respect to criteria identified and certified through regulations. The introduction of standards for end-of-life derived products is key for their recognition as an alternative energy source or secondary raw material and ultimately legislation will impact economic and environmental costs.
- The right enforcement procedures must also be put in place to make sure that the legislation is respected.

Artificial Reefs

The Committee also considered the use of tyres in artificial reefs which have been tried in some countries. Their main aim is the promotion of marine life by establishing a more complex marine habitat but they have other functions such as breakwaters, providing an anti-trawling system and enhancing the tourism potential of an area by attracting diving and surfing.

Used tyres have been used extensively to create reefs in the US, even though there are examples of the tyres breaking loose in storms and causing damage to existing reefs. They have also been used in Malaysia³⁹, Australia⁴⁰ and the UK⁴¹.

Members were particularly interested in the UK example where an experimental reef had been established in Poole Bay initially consisting of Pulverised Fuel Ash bound with cement and aggregate with tyres being added in 1998. After 10 years of monitoring, marine life was shown to have colonised widely with no significant uptake of tyre compounds into the surrounding waters. Dr Collins, who still oversees the artificial reef, confirmed to the Committee that he had no concerns about using tyres as a reef construction material in seawater from a biological or chemical contaminant perspective.

However, when the Committee asked the Department about the potential of this type of activity in Northern Ireland, it indicated that because the Convention for the Protection of the Marine Environment of the North East Atlantic, to which the UK is a signatory, bans the disposal of waste at sea, this would prohibit the use of used tyres in this way except under specific circumstances. The Department was concerned that it could be used as a thinly disguised mechanism for disposing of used tyres at sea. Its current position therefore is that it could not licence this activity but if the need for an artificial reef is established then a marine construction licence application would have to be considered on its own merits.

The Committee sought more information on the impact of European legislation on tyre related offences and the impact that this might have on tyre recycling in future.

In addition to the Landfill and End-of-Life Vehicles Directives which underpin the current approach to management of used tyres in Northern Ireland, the Committee was informed that the Incineration of Waste Directive (2000/76/EC) could over time potentially limit the use of

39 Alan T. White et al. (1980) Artificial Reefs for Marine Habitat Enhancement in Southeast Asia. International Centre for Living Aquatic Resources Management, Manila

40 Branden, K.L., Pollard, D.A. and Reimers, H.A. (1994) A Review of Recent Artificial Reef Developments in Australia. Bulletin of Marine Science, Volume 55, Numbers 2-3 September 1994 pp. 982-994(13)

41 K.J. Collins et al. (2002) Environmental Impact Assessment of a scrap tyre artificial reef. ICES Journal of Marine Science, 59:S243-S249

tyres in older cement kilns that cannot be retrofitted to sufficiently reduce emissions from tyre burning. Several older kilns have already been decommissioned.

Three other Directives; COM (2003) 572, COM (2005) 666 and COM (2005) 670 focus on furthering the Commission's goal to become a recycling society to reduce reliance on natural resources and to reinforce the waste hierarchy of reduce, reuse, recycle.

In addition, Regulation (EC) 1013/2006 Revisions on the shipments of waste strengthened the requirement of notification of waste transports, including tyres, within the EU and REACH Regulation (EC) 1907/2006 and Directive 2006/121/EC adapting 67/548 EEC to REACH applies to all chemicals and makes industry bear responsibility to manage the risks posed by chemicals and provide appropriate safety to their users. It requires the registration of substances including those that have been recycled, including tyres and granulate etc.⁴²

Conclusions

The island of Ireland has a number of tyre recycling and re-processing facilities with several companies looking to invest over the next few years. However, it would appear that most of the existing facilities are in the Republic of Ireland making access difficult for used tyres arising in Northern Ireland.

Indecision and/or a reluctance to be proactive in definition of waste by NIEA would appear to be making it more difficult for existing and potential recycling companies to identify and maximise markets. This leaves them at a disadvantage compared with their competitors in GB and the Republic of Ireland.

New and better enforcement of existing legislation could improve end-use management of used tyres by ensuring that end-of-life tyres can only be disposed of through authorised / certified disposal routes and the operations of end-of-life transporters, sorters, storage facilities and processing facilities are properly governed.

Retreading used tyres has become highly specialised and improved technology ensures a safe product. The industry should now endeavour to make the concept of retread tyres more acceptable to the public by developing and marketing accredited retread tyres as an economically viable and safe option.

Recommendations

- NIEA should carefully, clearly and quickly identify definitions of end of waste in a proactive rather than reactive way so that recyclers can plan their marketing strategies confidently and respond rapidly to changing global markets



Appendix 1

Minutes of Proceedings

Thursday 22 September 2011, Senate Chamber, Parliament Buildings

Present: Mr Simon Hamilton (Deputy Chairperson)

Ms Paula Bradley

Mr Peter Weir

Mr Cathal Boylan

Mr Patsy McGlone

Mr John Dallat

Mr Francie Molloy

In Attendance: Dr Alex McGarel (Assembly Clerk)

Mr Sean McCann (Assistant Clerk)

Mr Nathan McVeigh (Clerical Supervisor)

Ms Antoinette Bowen (Clerical Officer)

Apologies: Ms Anna Lo MBE (Chairperson)

Mr Danny Kinahan

Mr Willie Clarke

10. Departmental briefing on inquiry into used tyre disposal

Departmental officials briefed the Committee and answered members' questions on used tyre disposal.

12.42 pm Mr McGlone rejoined the meeting.

The main areas of discussion were producer responsibility schemes, tyre audit trails, tyre recycling and enforcement.

Agreed: That a letter is sent to the Department asking for clarification on the recruitment of staff to the Environmental Crime Unit, specifically the numbers being recruited and the reasons for the unit being significantly under its staff compliment.

Agreed: That a copy of the letter from the NIEA to Belfast City Council is forwarded to the Department.

Agreed: That the Committee will continue gathering evidence in relation to the Committee inquiry.

Agreed: That the reporting period of the inquiry is extended to allow time for the Department to provide the outcome of their Waste Data Survey and develop and implement their Action Plan.

Agreed: That a press release is issued welcoming the Department's proposals to review and develop an Action Plan for used tyres and indicate an extension to the Committee's Inquiry report to accommodate the data this will generate.

The Chairperson informed members that they have been provided with all the submissions to the inquiry in their master file.

Agreed: That Belfast City Council, Newline Waste Solutions, Ballymena Borough Council, Arc 21, SwAMP, Michelin, the Tyre Recovery Association and PPP Group are invited to brief the Committee at future meetings.

Agreed: That a tyre retailer is invited to brief the Committee at a future meeting.

11. NILGA briefing on inquiry into used tyre disposal

Representatives from NILGA briefed the Committee and answered members' questions on used tyre disposal.

The main areas of discussion were the lack of an audit trail for the disposal of tyres, the need for partnership working between councils, the Department and other statutory agencies, flytipping and enforcement.

Simon Hamilton MLA

Deputy Chairperson, Committee for the Environment
29 September 2011

[EXTRACT]

Thursday 13 October 2011, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Ms Paula Bradley Mr Willie Clarke Mr John Dallat Mr Danny Kinahan Mr Francie Molloy Lord Morrow Mr Peter Weir
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Nathan McVeigh(Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr Patsy McGlone Mr Cathal Boylan

8. Tyre Recovery Association briefing on Committee inquiry into used tyre disposal

Representatives from the Tyre Recovery Association briefed the Committee and answered members' questions as part of the inquiry into tyre disposal.

The main areas of discussion were traceability, regulations, cost of disposal and illegal dumping.

Members noted a Departmental reply to queries on staffing levels in the Environmental Crime Unit.

Members noted a reply from the project leader of the Poole Bay artificial reef project.

The Chairperson provided members with a brief outline of correspondence received from OM Tyre Recycling in relation to problems with NIEA which had resulted in the company's licence being suspended.

Agreed: That a letter is sent to the Department stating members' concern that this issue was sending out a negative message to the recycling industry and could lead to lack of investment and/or the necessary capacity in the sector and might also threaten valuable rural jobs. The letter is also to ask the Department to be more proactive in assisting companies that are striving for compliance.

Agreed: That a letter is sent to the Department for Health, Social Services and Public Safety asking for an indication of any respiratory problems in and around periods when bonfires are lit.

9. Belfast City Council briefing on Committee inquiry into used tyre disposal

Officials from Belfast City Council briefed the Committee and answered members' questions as part of the inquiry into tyre disposal.

The main areas of discussion were illegal disposal, enforcement and bonfires.

Anna Lo MLA

Chairperson, Committee for the Environment
20 October 2011

[EXTRACT]

Thursday 20 October 2011, Senate Chamber, Parliament Buildings

Present: Ms Anna Lo MBE (Chairperson)
Mr Simon Hamilton (Deputy Chairperson)
Ms Paula Bradley
Mr Willie Clarke
Mr John Dallat
Mr Danny Kinahan
Mr Francie Molloy
Lord Morrow
Mr Patsy McGlone

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh(Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

Apologies: Mr Peter Weir

7. Ballymena Borough Council briefing on Committee Inquiry into used tyre disposal.

11.39 am Ms Bradley left the meeting.

Representatives from Ballymena Borough Council briefed the Committee and answered members' questions as part of the inquiry into used tyre disposal.

The main areas of discussion were Ballymena Borough Council's tyre marking scheme, the role of the NIEA, enforcement and the flytipping protocol thresholds.

11.55 am Ms. Bradley rejoined the meeting.

11.55 am Mr. Molloy rejoined the meeting.

8. Newline Waste Solutions briefing on Committee inquiry into used tyre disposal.

12.20 pm Mr Morrow left the meeting.

Representatives from Newline Waste Solutions briefed the Committee and answered members' questions as part of the inquiry into used tyre disposal.

The main areas of discussion were the alternative uses for used tyres and the potential economic benefits from the development of these alternative processes.

12.27 pm Mr. Dallat left the meeting.

The Chairperson informed members that they had been provided with a note of Committee's visit to R4 and OM Recycling.

The Chairperson informed members that they had also been provided with a copy of an e mail from OM in relation to NIEA and a copy of an e mail from NIEA in relation to restrictions on OM.

Agreed: That the Committee wants to see the Department being supportive of recycling businesses; providing an appropriate balance of guidance and enforcement.

12.41 pm Mr. McGlone left the meeting.

10. Date, time and place of next meeting

The next meeting will be held on Thursday 27 October at 10.00a.m.in the Senate Chamber.

12.50 pm The Chairperson adjourned the meeting.

Anna Lo MLA

Chairperson, Committee for the Environment
27 October 2011

[EXTRACT]

Thursday 1 December 2011, Morrison Room, AFBI, Hillsborough

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Ms Paula Bradley Mr Peter Weir Lord Morrow Mr Willie Clarke Mr Cathal Boylan Mr John Dallat Mr Patsy McGlone
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Nathan McVeigh (Clerical Supervisor) Mr Christopher McNickle (Clerical Officer) Mrs Sharon Young (Clerical Officer)
Apologies:	Mr Danny Kinahan Mr Francie Molloy

6. Arc21 briefing on inquiry onto used tyre disposal

A Representative from Arc21 briefed the Committee and answered members' questions on the inquiry into used tyre disposal.

1.55pm Mr Weir left the meeting.

2.00pm Lord Morrow left the meeting.

The main areas of discussion were the liaison between councils and the NIEA, producer responsibility and enforcement.

7. Kerr's Tyres briefing on inquiry into used tyre disposal

A Representative from Kerr's Tyres briefed the Committee and answered members' questions on the inquiry into used tyre disposal.

The main areas of discussion were regulation of the industry, enforcement and used tyre sales.

8. SWaMP 2008 briefing on inquiry into used tyre disposal

Representatives from SWaMP 2008 briefed the Committee and answered members' questions on the inquiry into used tyre disposal.

2.46pm Mr Clarke left the meeting.

2.46pm Mr Hamilton joined the meeting.

The main areas of discussion were licensing of tyre retailers and producer responsibility scheme.

Anna Lo MLA

Chairperson, Committee for the Environment
15 December 2011

[EXTRACT]

Thursday 30 June 2011, Senate Chamber, Parliament Buildings

Present: Ms Anna Lo MBE (Chairperson)

Mr Simon Hamilton

Mr Cathal Boylan

Ms Paula Bradley

Mr Willie Clarke

Mr John Dallat

Mr Danny Kinahan

Mr Patsy McGlone

Lord Morrow

Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

Apologies: Mr Francie Molloy

8. Committee inquiry into used tyre disposal

The Chairperson informed members that they had been provided with draft terms of reference for the inquiry, a draft public notice, a draft stakeholder list and a draft letter to councils.

Agreed: That members are content with the terms of reference.

Agreed: That the public notice is issued in the 3 main newspapers.

1.18am Mr Clarke rejoined the meeting.

1.19am Mr McGlone left the meeting.

Agreed: That the letter is issued to the 26 councils.

Agreed: That members are content with the stakeholder list and that letters are sent directly to stakeholder calling for submissions to the inquiry.

Agreed: That the research paper on used tyre disposal is published on the website.

Anna Lo MBE

Chairperson, Committee for the Environment

8 September 2011

[EXTRACT]

Thursday 8 September 2011, Senate Chamber, Parliament Buildings

Present: Ms Anna Lo MBE (Chairperson)

Mr Simon Hamilton

Mr Danny Kinahan

Ms Paula Bradley

Mr Peter Weir

Lord Morrow

Mr Cathal Boylan

Mr Willie Clarke

Mr Patsy McGlone

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

Apologies: Mr John Dallat
Mr Francie Molloy

9. Committee inquiry into used tyre disposal

The Chairperson informed members that they had been provided with an Assembly research paper on alternative uses for tyres.

Agreed: That a research paper on artificial reefs made from used tyres is requested.

Simon Hamilton

Deputy Chairperson, Committee for the Environment

15 September 2011

[EXTRACT]

Thursday 15 September 2011, Senate Chamber, Parliament Buildings

Present: Mr Simon Hamilton (Deputy Chairperson)

Mr Danny Kinahan

Ms Paula Bradley

Mr Peter Weir

Lord Morrow

Mr Cathal Boylan

Mr Willie Clarke

Mr Patsy McGlone

Mr John Dallat

Mr Francie Molloy

In Attendance: Dr Alex McGarel (Assembly Clerk)

Mr Sean McCann (Assistant Clerk)

Mr Pauline Devlin (Clerical Supervisor)

Ms Antoinette Bowen (Clerical Officer)

Apologies: Ms Anna Lo MBE (Chairperson)

13. Committee inquiry into used tyre disposal.

The Chairperson informed members that they had been provided with a draft itinerary for a Committee visit to a tyre manufacturer, a tyre recycling centre and a proposal to meet with officials from Ballymena Borough Council.

Agreed: That the visit is arranged.

Members noted a Departmental reply to Committee queries on artificial reefs.

Simon Hamilton MLA

Deputy Chairperson, Committee for the Environment

22 September 2011

[EXTRACT]

Thursday 29 September 2011, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Cathal Boylan Ms Paula Bradley Mr Willie Clarke Mr John Dallat Mr Danny Kinahan Mr Francie Molloy Lord Morrow Mr Peter Weir
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Nathan McVeigh (Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr Patsy McGlone

7. Committee Inquiry into Used Tyre Disposal

Members noted an itinerary for the Committee's fact finding visit as part of its tyre inquiry.

The Chairperson informed members that they had been provided with revised Terms of Reference for the inquiry.

Agreed: That the revised Terms of Reference are published on the Assembly website.

Members raised the issue of the charge by retailers for the disposal of a tyre.

Agreed: That a letter is sent to the Department asking for the total amount of money that is being collected through this scheme.

The Chairperson informed members that they had been provided with an Assembly Research paper on an artificial reef at Poole Bay.

Agreed: That a letter is sent to the person in charge of overseeing the artificial reef project asking for the outcomes of this experiment.

Anna Lo MLA

Chairperson, Committee for the Environment
13 October 2011

[EXTRACT]

Thursday 10 November 2011, Glen Suite, Burrendale Hotel, Newcastle

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Danny Kinahan Ms Paula Bradley Mr Peter Weir Mr Willie Clarke Mr John Dallat Mr Francie Molloy
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Nathan McVeigh (Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr Cathal Boylan Mr Patsy McGlone

8. Inquiry into Used Tyre Disposal

The Chairperson informed members that they had been provided with a reply from the Housing Executive to Committee queries on illegal dumping of tyres on its land.

Agreed: That a letter is sent to the Northern Ireland Housing Executive asking them to reconsider their response in light of the fact that some members are aware of tyres that have been removed from NIHE property.

Members noted a DHSSPS reply to Committee queries on the cost to the Fire and Rescue Service of attending tyre fires.

The Chairperson informed members that they had been provided with an email from OM Tyres.

Agreed: That a thank you letter is sent to OM tyres for their information.

Anna Lo MLA

Chairperson, Committee for the Environment
17 November 2011

[EXTRACT]

Thursday 24 November 2011, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Danny Kinahan Ms Paula Bradley Mr Peter Weir Lord Morrow Mr Willie Clarke Mr Cathal Boylan Mr Francie Molloy
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Nathan McVeigh (Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr John Dallat Mr Patsy McGlone

Agreed: That a copy of the synopsis of responses is requested.

7. Inquiry into used tyre disposal

Members noted copies of emails from Pyreco in relation to artificial reefs.

Members noted a reply from the Health Minister to Committee queries on respiratory problems.

Members noted a Departmental reply to Committee queries on the tyre disposal charge from retailers.

Members noted a follow up letter from Ballymena Borough Council following their briefing to the Committee.

Members noted a revised itinerary for the Committee's Dublin visit as part of the inquiry.

Anna Lo MLA

Chairperson, Committee for the Environment
1 December 2011

[EXTRACT]

Thursday 15 December 2011, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Danny Kinahan Ms Paula Bradley Mr Willie Clarke Mr John Dallat Mr Cathal Boylan Mr Patsy McGlone
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Nathan McVeigh (Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr Francie Molloy Lord Morrow Peter Weir

10. Inquiry into used tyre disposal

The Chairperson informed members that they had now received the last of its planned oral briefing sessions.

Agreed: That members are content for the Secretariat to prepare a first draft on an interim report for consideration in the New Year.

Members noted a letter in relation to obtaining energy from waste tyres.

Members noted a Departmental reply to Committee queries on OM Tyre Recycling.

Members noted a request to meet another Tyre Recycling company.

Agreed: That the Chairperson would meet the energy from tyres and tyres recycling companies and report back to the Committee.

Anna Lo MLA

Chairperson, Committee for the Environment
12 January 2012

[EXTRACT]

Thursday 12 January 2012, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Danny Kinahan Ms Paula Bradley Mr Willie Clarke Mr Cathal Boylan Mr Peter Weir Mr Francie Molloy Lord Morrow
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Nathan McVeigh (Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr John Dallat Mr Patsy McGlone

7. Inquiry into used tyre disposal

The Chairperson informed members that they had been provided with an invitation to visit Crumb Rubber's used tyre disposal plant.

Agreed: That a letter is sent to Crumb Rubber asking for a written briefing.

The Chairperson informed members that they had been provided with a Housing Executive reply to Committee queries on the illegal dumping of tyres.

Agreed: That a letter is sent to the Northern Ireland Housing Executive expressing concern over the approach they are taking and asking them to confirm that these events are being reported to the Northern Ireland Environment Agency and recorded.

Anna Lo MLA

Chairperson, Committee for the Environment
19 January 2012

[EXTRACT]

Thursday 19 January 2012, Senate Chamber, Parliament Buildings

Present: Ms Anna Lo MBE (Chairperson)
Mr Simon Hamilton (Deputy Chairperson)
Mr Danny Kinahan
Ms Paula Bradley
Mr Willie Clarke
Mr Cathal Boylan
Mr Peter Weir
Mr Francie Molloy
Lord Morrow
Mr John Dallat
Mr Patsy McGlone

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Nathan McVeigh (Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

12. Inquiry into used tyre disposal

Members noted a reply from the Department of Environment, Community and Local Government in relation to the used tyre inquiry and agreed its inclusion in the Inquiry report.

Simon Hamilton MLA

Deputy Chairperson, Committee for the Environment
26 January 2012

[EXTRACT]

Thursday 26 January 2012, Room 21, Parliament Buildings

Present: Mr Simon Hamilton (Deputy Chairperson)
Mr Danny KinahanMs Paula Bradley
Mr Willie Clarke
Mr Cathal Boylan
Mr Peter Weir
Lord Morrow
John Dallat
Patsy McGlone

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Michael Greer (Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

Apologies: Ms Anna Lo (Chairperson)

7. Inquiry into used tyre disposal

The Chairperson informed members that they had been provided with an Environmental Protection Agency reply to Committee queries on the management of used tyres.

Agreed: That the reply would be included in and inform the Committee's Inquiry report

Anna Lo, MLA

Chairperson, Committee for the Environment
02 February 2012

[EXTRACT]

Thursday 2 February 2012, Senate Chamber, Parliament Buildings

Present: Ms Anna Lo (Chairperson)
Mr Simon Hamilton (Deputy Chairperson)
Ms Paula Bradley
Mr Willie Clarke
Mr Cathal Boylan
Mr Peter Weir
Lord Morrow
John Dallat
Patsy McGlone
Mr Danny Kinahan

In Attendance: Dr Alex McGarel (Assembly Clerk)
Mr Sean McCann (Assistant Clerk)
Mr Michael Greer (Clerical Supervisor)
Ms Antoinette Bowen (Clerical Officer)

7. Inquiry into used tyre disposal

The Chairperson informed members that they had been provided with a reply from Crumb Rubber Ltd on the management of used tyres.

Agreed: That a copy of the reply would be included in the Committee's Inquiry report.

Anna Lo, MLA

Chairperson, Committee for the Environment
9 February 2012

[EXTRACT]

Thursday 23 February 2012, Lylehill Suite, Hilton Hotel, Templepatrick

Present: Ms Anna Lo MBE (Chairperson)

Mr Cathal Boylan

Mr Gregory Campbell

Mr Willie Clarke

Mr John Dallat

Mr Danny Kinahan

Mr Patsy McGlone

Mr Francie Molloy

Lord Morrow

Mr Peter Weir

In Attendance: Dr Alex McGarel (Assembly Clerk)

Mr Sean McCann (Assistant Clerk)

Mr Gavin Ervine (Clerical Supervisor)

Ms Antoinette Bowen (Clerical Officer)

Apologies: Mr Simon Hamilton (Deputy Chairperson)

5. Draft Inquiry report into used tyre disposal

The Chairperson informed members that they had been provided with a copy of the draft Committee report and an annex dealing with key sectoral issues.

Agreed: That this report is re-tabled at the meeting on 1 March 2012 for discussion.

The Chairperson informed members that they had been provided with a Departmental reply to queries from Belfast City Council on the illegal disposal of tyres.

Agreed: That this reply is included in the draft Committee report.

The Chairperson informed members that they had been provided with a Departmental reply to Committee queries on why there is no target for tyre recycling in the Waste Management Strategy 2006-2020.

Agreed: That this reply is included in the draft Committee report.

Agreed: That a letter is sent to the Department asking which type of tyres the landfill ban does not apply to and how tyre components, like inner tubes, are dealt with and also informing them the Committee would like to see recycling targets for waste tyres included in the Waste Management Strategy 2006-2020 .

Anna Lo, MLA

Chairperson, Committee for the Environment

1 March 2012

[EXTRACT]

Thursday 29 March 2012, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Danny Kinahan Lord Morrow Mr Peter Weir Mr Cathal Boylan Mr Patsy McGlone Mr Francie Molloy
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Ms Antoinette Bowen (Clerical Officer)
Apologies:	Mr John Dallat Mr Willie Clarke

7. Inquiry into Used Tyre Disposal

The Chairperson informed members that they had been provided with 6 Assembly Research papers in answer to members' queries following the last discussion on the draft inquiry report.

Agreed: That a copy of the Research papers is included in the Committee's Inquiry report.

Anna Lo, MLA
Chairperson, Committee for the Environment
17 April 2012

[EXTRACT]

Thursday 19 April 2012, Senate Chamber, Parliament Buildings

Present:	Ms Anna Lo MBE (Chairperson) Mr Simon Hamilton (Deputy Chairperson) Mr Cathal Boylan Mr Gregory Campbell Mr John Dallat Mr Danny Kinahan Mr Patsy McGlone Mr Francie Molloy Lord Morrow Mr Peter Weir
In Attendance:	Dr Alex McGarel (Assembly Clerk) Mr Sean McCann (Assistant Clerk) Mr Gavin Ervine (Clerical Supervisor) Ms Antoinette Bowen (Clerical Officer)

9. Draft Committee report into used tyre disposal

Members formally considered the final draft of the Committee Report into Used Tyre Disposal.

2:33pm The Chairperson declared the meeting open to the public.

- Agreed: That the recommendations stand part of the Report.
- Agreed: That the Introduction stand part of the Report.
- Agreed: That the Context of the Inquiry stand part of the Report.
- Agreed: That the Consideration of Evidence stand part of the Report.
- Agreed: That Appendix 1 – Minutes of Proceedings stand part of the Report.
- Agreed: That Appendix 2 – Minutes of Evidence stand part of the Report.
- Agreed: That Appendix 3 – Written Submissions stand part of the Report.
- Agreed: That Appendix 4 – List of Witnesses stand part of the Report.
- Agreed: That Appendix 5 – Research papers stand part of the Report.
- Agreed: That Appendix 6 – Other Papers submitted to the Committee stand part of the Report.
- Agreed: That Appendix 7 – Key Sectoral Issues stand part of the Report.
- Agreed: That the relevant extract from the minutes of today's meeting stand part of the Report.
- Agreed: That the Report is printed and submitted to the Business Office.
- Agreed: That the Committee motion on the Report is laid with the Business Office.

Anna Lo, MLA

Chairperson, Committee for the Environment
03 May 2012

[EXTRACT]



Appendix 2

Minutes of Evidence

22 September 2011

Members present for all or part of the proceedings:

Mr Simon Hamilton (Deputy Chairperson)
 Mr Cathal Boylan
 Ms Paula Bradley
 Mr John Dallat
 Mr Patsy McGlone
 Mr Peter Weir

Witnesses:

Ms Helen Anderson	<i>Department of the Environment</i>
Mr Dave Foster	
Ms Pamela Patterson	
Councillor Shaun Gallagher	<i>Northern Ireland Local Government Association</i>
Councillor Hubert Nicholl	
Dr Tim Walker	

1. **The Deputy Chairperson:** Joining us today to give evidence are Pamela Patterson and Dave Foster, who are both from the Northern Ireland Environment Agency (NIEA), and Helen Anderson from the Department's environmental policy division. You are all very welcome. I am sorry for keeping you. Can you give a brief run through your paper, and then I will open the meeting to questions from members.
2. **Mr Dave Foster (Department of the Environment):** Thank you, Chairperson. I am glad to have been invited here today. The Department very much welcomes the inquiry that the Committee is undertaking on waste tyres. The Minister and the wider Department recognise that waste tyres are often a significant environmental health issue. Indeed, recently, there were two major fires involving waste tyres. We are seeking to be proactive in that regard and have been developing a tyres action plan to cover some of those issues. That is backed up by a joint working group of policy and NIEA officials, linking into other jurisdictions as well, to try to get an idea of best practice there.
3. Within the draft action plan, we have picked up five themes, which are outlined in more detail in the paper. First, there is a need to understand the scale of the issue and the number of waste tyres and their flows through the processes. Secondly, we are looking at the regulation and enforcement of existing legislation and the role that we in the Environment Agency and the wider Department play. Thirdly, we are looking at policy options to see if there is a need for policy change or legislative change, and we are looking at best practice in relation to policy legislation in other jurisdictions. Fourthly, we are exploring alternative uses for waste tyres and seeing what markets there are and what market development there might need to be to ensure that there is adequate end use for waste tyres. Finally, we are looking at co-ordination and communication and making sure that the various industrial sectors are aware of their obligations and duties and that we get a clear and consistent message out to them. Some of the detail is set out in the paper, which we circulated to the Committee, so I am happy to take questions and comments around that.
4. We welcome the opportunity to consider some of the ideas and recommendations that come from this inquiry and to put them into the final version of the action plan, which the Minister is keen to be involved with. Certainly, we hope that that some of our activities will help directly with the inquiry, particularly the proposed waste data survey that we hope to undertake in the next few months. That will help to inform some of the discussions of the inquiry. My colleagues and I are happy to help with any detail of the paper or, indeed, any wider issues that the inquiry may wish to look at.
5. **The Deputy Chairperson:** I welcome the work that the Department is starting and your comments. I derive from what you say that you see Committees working

alongside what the Department is doing. In some respects, we can inform each other, and that is helpful. When we were doing our initial examination of this issue before recess, one solution that many European states use is producer led, whereby producers take the responsibility for getting rid of or recycling their used tyres. Are you working with any producers to look at a similar model for Northern Ireland?

6. **Ms Helen Anderson (Department of the Environment):** In 2003, the Department for Environment, Food and Rural Affairs (DEFRA) did some consultation work looking at a producer responsibility scheme specifically for tyres. We followed the work on that, and, at that time, it was decided not to proceed with that scheme on the basis that it would have been viewed as being unwieldy and cost-prohibitive. However, the Department is keen to explore producer responsibility schemes in operation elsewhere, including the UK. Engagement with others on what they have in place, estimations of its effectiveness, and whether there may be applicability to Northern Ireland will be considered as part of the action programme that the Department intends to bring forward.
7. **The Deputy Chairperson:** Presumably you will be talking to tyre producers as part of that.
8. **Ms H Anderson:** Yes.
9. **Mr D Foster:** Under the auspices of the North/South Ministerial Council, we met officials in Dublin over the summer. There is a scheme in the South called the Tyre Recovery Activity Compliance Scheme (TRACS) and officials there are very open about their experience of that and how it has worked. So, we are looking at that in the UK context to ensure that we have covered all the sides.
10. **Mr Boylan:** This is a subject in which the Committee is keenly interested and would like to address. However, I am surprised to read in one document about no clear designation of responsibility

and lack of a strategy. Meanwhile, the Department's briefing paper states that: "NIEA has found Duty of Care to be an ineffective mechanism for tracking the disposal of waste tyres."

The paper also refers to an EU Life+ funded project that:

"aims to develop an electronic data of case type system".

That is fine and I agree with that. However, going back to the issue, about six months ago I was at a beauty spot in my own area. I walked into the forest, and there were 40 or 50 tyres sitting there. I had been continually asking every single week for rubbish and everything to be removed, and here we had these tyres dumped. I phoned the local council. It is about responsibility, and it is very difficult. The ratepayer always picks up the tab in these cases. I am annoyed, however, to hear about this EU-funded project. There is obviously no strategy, and at the end of this inquiry there certainly will be a strategy and roles and responsibilities.

11. We currently pay £1.50 or £2 for the disposal of a tyre. At least, that is supposed to be the case if you go into any tyre company to get your tyres changed. We are taking money out of EU-funded projects that could be used elsewhere. That is my own personal feeling, if we want it resolved. However, where is that money going and where is the accountability up to now? That is something we need to look at seriously. The majority of the public believes that when you pay the moneys, that is what you are paying for. I do not want to get into the issue of burning — maybe other members would like to bring that up — all I am saying is that we know that people are paying the money and there has to be accountability and responsibility for that. Where is the tracking?
12. **Mr D Foster:** I will pick up the initial point about the EU LIFE+ project and reassure you that that will not be diverting significant resource from elsewhere in the Department. The Department is effectively paying a relatively small amount of the overall

- amount, and are confident that we are getting a very good ratio of gain. We will get a significant benefit for a relatively small input. I recognise that that is not the bigger issue, but I chose to pick out that particular point.
13. **Mr Boylan:** I agree, but if people are already paying, that money should be used as it has to be. It is not the case that I am asking about raising the levy or anything else. People are already paying, and they think that they are paying for the disposal of the tyres. That is not happening. Then we look at European projects. The project on its own might warrant some merit, I am not arguing that point, but I am concerned.
14. **Ms Pamela Patterson (Department of the Environment):** Let us consider the retailers or producers. Ordinarily, producers add a voluntary recycling fee. When someone goes in and changes their tyres, they are told that there is a fee for recycling those tyres. At the moment, as I said, that is voluntary. The retailer would then assume that that fee is going towards disposal. The retailer makes a payment to the collector who collects the tyres. For the most part, the industry is working; retailers are passing waste tyres to a reputable and registered carrier. However, there are those in a certain unscrupulous sector who are picking up the tyres. They may or may not fill in a transfer note, and they may or may not fill in the transfer note correctly. They may collect the tyres and perhaps state on the transfer note that they are going to an authorised facility, whereas we, the agency, know that that is not the case. You have there a breakdown in whether the duty of care is complied with at the outset or a breakdown along part of the chain.
15. The recycling fee itself is between the producer and the registered carrier, the collector. It is up to them how much they give that person to collect the tyres. At present, that is not down to the Department. It is not a Department tax or revenue. That is, as I said, between those parties.
16. The issue we have at the moment is that, under the duty of care, there are a number of links in the chain where people are not complying with the full rigours of the legislation. The agency is out there. We do audit the registered carriers. We audit the authorised recycling facilities. That is where we come in. We do keep a stringent control on those, but you still have, on the fringes and in the grey area, unscrupulous people who are breaching the law.
17. **Mr Boylan:** I do not think that a retailer would be happy if I went in and asked for a price for a set of tyres, and he said that he would give me them for, say, £100, and I said, "Sure, I will give you £96". There is a problem there.
18. **The Deputy Chairperson:** That highlights quite succinctly the problem. There is an identified problem here, which the Committee has cottoned on to and the Department has now cottoned on to as well. If I go this afternoon to change a tyre, and the retailer says that there is a £2 fee — that is a rough figure — are you saying that that is a voluntary fee? As a consumer, I do not have to pay that?
19. **Ms Patterson:** You do not have to pay it. For instance, if you want to hold onto your property, you can say that you will take that property with you to use, for example, on silage clamps.
20. **The Deputy Chairperson:** This is becoming very hypothetical. If I do not pay the fee, do I have to take the tyre away?
21. **Ms Patterson:** The retailer will not keep the tyre unless you are willing to pay the recycling fee.
22. **The Deputy Chairperson:** That is where the voluntary element comes into it.
23. **Ms Patterson:** As a member of the public, you can take your property away and dispose of it, hopefully legitimately.
24. **The Deputy Chairperson:** We will find that beauty spot. [Laughter.]
25. **Mr Boylan:** Do not come down my way with it at all. All codding aside, Chairman —

26. **The Deputy Chairperson:** It is a serious point; active fraud is going on in some cases where people are paying the recycling fee.
27. **Mr Boylan:** You are 100% right. We may joke about it, but, in general, people pay the fee. You could challenge the retailer over the fee, if you wanted to, whether it is £1.50 or £2 or whatever, but you would rather the tyres were disposed of properly, and that is why you pay the fee in good faith. The fraud is not just happening in my area; it is happening all over the place. I hope that this inquiry will resolve something.
28. **Mr Dallat:** To be honest, it does not seem as though we have made much progress. I suppose we have to start somewhere. The Department's paper states:
- "NIEA will normally seek to prosecute where the activity is likely to cause pollution or harm to human health".*
- There is a report from Ards Borough Council that states that, on one occasion, approximately 1,000 tyres were burned on one bonfire. Is anyone suggesting that that did not pose a risk to human health? I do not need to go to Ards to see that happening; I can see it in Coleraine. There is a large number of older people with asthma and other breathing difficulties who do not suffer that for just one night. They suffer for months afterwards because the residue from the burned tyres gets into the spouts and the eaves in the roofs of their houses. Yet, two days later, if a farmer lights a whin bush, he will have someone with him within 15 minutes to tell him that he is breaking the law.
29. The system has to be credible, for a start. If it has no credibility, it has nothing. This is total and absolute waffle from beginning to end, and I have no serious expectation that the problem is ever going to be solved. It is not a laughing matter anymore: it is serious.
30. Where do the tyres go? I know of a small business close to where I live that recycles tyres. I wonder what support is given to the owners of that business.
31. I know that they had a struggle to get planning permission and to get going, but they are doing it.
32. There are two sides to the issue; the enforcement side and the encouragement. Let's face it, if you are penalised for taking off an old tyre, but someone else can gain from disposing of it illegally, where is the hope that that situation would transform itself into some kind of normal market process in which the obvious thing to do would be to recycle the tyre? I am not sure that I am using a fair analogy, but if I brought an egg in here today, you could tell me within five minutes practically which hen laid that egg. Yet we have a pile of stuff here that says that we cannot say anything about the tyres. If you go to McAtamney's, my local butchers, the best in the North, to buy a pound of meat, the traceability scheme can tell you within an hour which cow that meat came from.
33. If this inquiry is to be of any value at all, we need to stop messing around and saying that tyres are not traceable. Tyres are marked with reference numbers. A good policeman will have no problem in going into court to read out the reference number of a tyre that is under the legal tread limit and prosecute someone as a result. Yet we can have 1,000 tyres on a bonfire in Ards, and no one knows where they came from. That is not on.
34. **Mr D Foster:** The issue of enforcement is very important. We are not specifically addressing the issue of bonfires at the moment, but our environmental crime team does pick up cases where illegal disposal of waste tyres has been taking place and significant financial gain is involved. We are pursuing a number of cases in that regard.
35. There are a lot of issues in relation to bonfires, which I am sure that the Committee has discussed on various occasions, such as issues of cultural sensitivity as to how we should deal with them and how we should work with local councils. Earlier, the Committee looked at the issue of fly-tipping, the fly-

- tipping protocol and the commencement of the Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011. As part of that process, we in the DOE have to sit down with local councils and work out exactly where responsibilities lie and devise practical mechanisms for making the Act work.
35. Pamela, do you want to say something on traceability?
36. **Ms Patterson:** I have been regularly to sites where tyres have had the marks buffed off them. It is easy and quick to do. At other sites, the small square where the number is located has been cut out of the tyre.
37. **Mr Dallat:** In defence of local councils, let me say that I have read the reports, and the one thing that strikes me is that local councils are genuinely trying to make an effort to bring the problem to an end, because they are the people who have to live with it every day. They do not get support from the Department, I am sorry to say. You really need to come up with something a little more robust than saying that numbers are buffed off tyres. I imagine that that might happen, but that might affect less than 1% of the tyres. Most have numbers on them, and no serious attempt has been made to find other ways of tracing the tyres. I will leave it at that.
38. **The Deputy Chairperson:** I will follow on from John's point about enforcement. We received a copy of correspondence sent to Belfast City Council from the Environment Agency to the effect that there are no plans to carry out inspections in the Belfast area this year. We can furnish you with a copy of it. It somewhat backs up John's point. It somewhat undermines efforts that are made elsewhere.
39. I do not want to push you to answer a question on something that you have not seen. I am just telling you. It does not look good.
40. **Ms Patterson:** Does that refer to inspections of licensed sites?
41. **The Deputy Chairperson:** No. I think it is about illegal sites.
42. **Ms Patterson:** Right.
43. **The Deputy Chairperson:** We will await a response.
44. **Mr D Foster:** I suspect that, if that correspondence is in relation to illegal sites, the issue is one for our environmental crime team, which is severely understaffed. We have fewer than one investigator per council area to deal with illegal sites. We are actively recruiting to address that issue. However, we are happy to respond.
45. **The Deputy Chairperson:** Sorry; it was not inspections of illegal sites; it was inspections of producers of waste tyres. I suppose that those could be acting illegally as well. We will await a response.
46. **Mr McGlone:** I will pick up on a number of issues that were raised. The location of bonfires in many areas poses a health and safety risk to people. Aside from the tons of black smoke that go up into the air, it has come to the point now that — and I do not know whether you know this, but half the country knows it — if people want to get rid of substantial waste, they burn it on the night of 11 July. They know that there is no chance whatever, whether satellites or whatever are used, that anyone will come near them. That is the farcical point that we are now at. An opening has been created, and people use it to do stuff. If someone lands out to them and challenges them, they will respond, "I am celebrating my culture". Or it could be some other night in the year when they are celebrating their culture. The celebration of cultural diversity has taken so many twists and turns now that it has led to the pollution of the environment and the encouragement of still more pollution.
47. The other thing that you touched on, Mr Foster, was that you are actively recruiting. How many people are you actively recruiting, and at what stage is that recruitment? Sorry, perhaps I should first ask what posts you are recruiting

- for. How many do you design to recruit, and what stage is the process at?
48. **Mr D Foster:** The recruitment that I referred to is for the environmental crime team. That team is in a different part of the agency, but I can come back to you with specific figures. We are at an active stage in that recruitment. We are close to advertising for that, and the recruitment process has passed through all the internal approvals. That recruitment will see between 10 and 14 staff being employed in that team to take it back to full strength.
49. **Mr McGlone:** Is that team under strength?
50. **Mr D Foster:** Yes.
51. **Mr McGlone:** Right. Will the recruitment just bring the team up to its complement?
52. **Mr D Foster:** Yes.
53. **Mr McGlone:** So, are you telling us that the team is between 10 and 14 people under complement?
54. **Mr D Foster:** Yes. That is correct.
55. **Mr McGlone:** Why is that the case? Perhaps you cannot tell me that at the moment.
56. **Mr D Foster:** That team is in a different part of the agency, so I cannot give you specific reasons why that is the case.
57. **Mr McGlone:** I think that we really need to know that. Perhaps I picked it up wrong. I thought that the agency was recruiting extra staff, but that recruitment will just bring it up to what it was.
58. **The Deputy Chairperson:** To pick up on a comment that Patsy made, I understand that there is linkage between tyres and bonfires, but this is an inquiry into used tyres, not bonfires. John cited the example of Ards, where they are now down to three bonfires on which tyres were burnt. That is an area where there are approximately 30 bonfires. We are down to one in 10, and I am a ratepayer in that area. I daresay that I have been to more bonfires this year than Patsy, and I saw no tyres at any of the bonfires that I was at —
59. **Mr Dallat:** Chair, he goes out checking them as well.
60. **The Deputy Chairperson:** He does, perhaps more than I do. The only bonfire that I saw this year on which tyres were burnt was on television, and it was a bonfire to commemorate internment.
61. If this inquiry is to be worth anything, it cannot start to assault bonfires wherever they are. A great deal of progress has been made, and there will be no progress on any inquiry that we get into, if it starts to assault the eleventh night or any other occasion. That is not what this inquiry is meant to be about. We need to be careful about the language that we use.
62. **Mr McGlone:** To clarify, I do not give a hoot about whose claimed culture it is that is using these oul' tyres. I really do not give a hoot. I could take you to bonfires on which tyres were burnt in Magherafelt and Cooskown, and I have a photograph of one in Moneymore. I do not care whose culture is being celebrated by these bonfires, all I am concerned about is the damage that they cause to the environment and to the health of those who live in close proximity to them. I had a visit from a lady yesterday who told me of one such instance. I am also concerned about damage to properties. The issue of bonfires needs to be touched on in this inquiry.
63. **Mr Dallat:** In view of the Deputy Chairperson's remarks, I must say that all the complaints that I have received about bonfires have come from the unionist/loyalist community. You will not be surprised at that. Members of that community have had their plastic windows and doors melted, their oil tanks set on fire and a range of other related problems as a result of bonfires. When I spoke passionately about the issue of bonfires, I was, in fact, representing people from the unionist community who have had enough and cannot take any more.

64. **The Deputy Chairperson:** I am making the point that we are not going to let the inquiry descend into an attack, no matter how it is expressed —
65. **Mr Dallat:** You did that.
66. **The Deputy Chairperson:** I did not raise the issue of the 11 July — we can go back over the Hansard report — and pinpoint it as a date on which anyone who wants to get rid of illegal tyres can do so. Mr McGlone said that. That is not the case, and it also ignores the fact that there has been substantive progress. If you read through the file, you will see that massive progress has been made. It is not perfect by any means, but huge progress has been made. The problem does not lie with bonfires to the same extent that it might have done five or 10 years ago, and I have said that before in the Committee. I hope we can all agree on that.
67. **Mr Dallat:** Mr McGlone may not have said it, but he may be implying that there might be the odd fire on the 11th night that has nothing to do with King Billy crossing the Boyne.
68. **Mr McGlone:** That is my point. To be perfectly clear, Simon, those people have fires elsewhere to dispose of their illegal rubbish.
69. **The Deputy Chairperson:** That is a different matter entirely.
70. **Mr McGlone:** Well, they are using the cover.
71. **Mr Dallat:** It is just a convenient date to do it.
72. **The Deputy Chairperson:** Sorry, we have kept the poor officials here as we have a bit of a spat.
73. **Mr Boylan:** What happened to the egg? [Laughter.] Do not record that, please.
74. **Mr Weir:** I am not sure whether it was John or Patsy who laid the egg rather than a hen.
75. **Mr Boylan:** It was scrambled.
76. **Mr Dallat:** I will bring you in a duck egg.
77. **The Deputy Chairperson:** Dave, Helen and Pamela, thank you very much for your evidence. We appreciate it.
78. Joining us and representing the Northern Ireland Local Government Association (NILGA) are Councillor Shaun Gallagher, Councillor Hubert Nicholl and Tim Walker from the technical advisors group. You are all very welcome. I ask you to make a brief introductory presentation and then we will open it up for questions.
79. **Councillor Shaun Gallagher (Northern Ireland Local Government Association):** I will be very brief; I am aware of the time and that lunch is ready. Thank you for your invitation to present evidence to the Committee as part of the inquiry into tyre disposal. I believe that this is the first time since the recent elections that NILGA has been invited, so I congratulate you all on your election and wish you well in your term. I hope that things go well for you folks.
80. I understand that members of the Committee have been furnished with a copy of the briefing from NILGA on the issues that we feel to be relevant to the inquiry's terms of reference. I do not intend to read through the briefing, but we will be happy to pick out key issues that our members have raised as being of the highest importance, and we will then obviously answer some questions.
81. NILGA welcomes the timely inquiry into an issue that is causing increasing concern for local councils. I understand that you have obtained figures from councils that go some way towards showing the extent of the problem of illegal tyre disposal in Northern Ireland. My colleagues and I are familiar with receiving complaints on issues that we have no powers to deal with, and I am encouraged that the Committee is now examining tyre disposal. I hope that the report from the inquiry will recommend solutions for the benefit of all our citizens.
82. As chair of NILGA's waste and environment working group and vice-chair of the waste programme board — the Minister is the chair — I have

- the opportunity to discuss tyre disposal with the Minister, tyre producers and a wide range of local government elected members and officers. As a councillor on Derry City Council, I have also witnessed at first-hand how serious an issue illegal activity with tyres can be. I vividly remember the recent fires in Pennyburn and Campsie in my own area, which caused serious air pollution and required an extensive clean-up exercise. Police and fire authorities estimate that there were between 500,000 and one million tyres set alight at the fire in Campsie. Police believe that the individual involved in that made at least £1 million, and is not in this jurisdiction at the moment. As the saying goes, he is sucking piña coladas in Spain somewhere. That is the kind of level of crime that is going on at the moment.
83. NILGA has identified four main categories of illegal activity of concern to councils with regard to tyres. The thing to remember about those fires is the clean-up cost, which, for the Campsie fire, ran to about £800,000. I do not have a figure for the Pennyburn one. Those are the kinds of issues that we are dealing with. Large scale activity and stockpiling, such as in the incidents I just outlined, are the major concern. That trend seems to be increasing. Smaller scale activity and fly-tipping happen frequently, and regular occurrences of illegal tyre disposal poses an increasing cost to councils, although councils have no statutory authority to remove tyres unless on council-owned land. Tyres frequently end up with councils, which need to dispose of them legally and responsibly, incurring an extra cost to the ratepayer. You referred to that earlier, Chair.
84. The Committee will be aware that work is ongoing to develop a fly-tipping protocol for Northern Ireland, which I am keen to discuss with you on another day, as I believe that a full and frank conversation on that issue is necessary. I will add to that by saying that the views of some departmental officials on that issue are naive, to say the least.
85. The only example I can give you of seasonal burning of tyres and bonfires is on my own patch, where I recently watched a bonfire leading up to the anniversary of the introduction of internment. Up until the very last moment the tyres were not there, but suddenly they appeared. I estimated that there were around 1,800 of them. They just appeared, so that was organised. That was somebody disposing of tyres. If it happened with that bonfire, it would have happened with a lot of bonfires. I tried very hard to find out whether money exchanged hands between the young fellas organising the bonfire and the person who gave them the tyres, but I was amazed to find that they were actually stored in an empty house in an estate. We have work to do on that, and it is in all of our interests that we do it.
86. We are also concerned about grey areas of enforcement, which, regardless of improvements to enforcement regimes, may continue to pose a problem. As highlighted in our briefing, our members raised issues surrounding remoulds and part-worn tyres as well as the potential for individual customers of tyre depots to remove tyres to dispose of at their leisure, most likely illegally. Let us be honest: if you are going to get four tyres, and the boy says he needs £2 a tyre to recycle the old ones, you will say that you will recycle them yourself. You will tell him to throw the tyres in the boot of the car, and think that councils will pick up those four tyres. When Hubert speaks to his case in a minute, he will give you an example of what happens on his property. I will bring in my colleague Hubert here, who lives in a more rural area, to give you a perfect example of recent tyre disposal.
87. **Councillor Hubert Nicholl (Northern Ireland Local Government Association):** In March last year, I acquired a farm on the main road between Randalstown and Portglenone, which is one of the main roads from Belfast to Derry. In one week, I had 16 tyres tipped in four different places. Obviously, some young guy was sent out from one of these tyre

- depots with four tyres, and was asked to get rid of them somewhere. I am seven miles from Ballymena and eight miles from Antrim. They were thrown through the hedge into a sheugh on my farm. Those of you who come from the country will know what a sheugh is, and if you have four or five tyres thrown into one, you very soon get a bit of flooding in your field.
88. Prior to that, a neighbour of mine came along that same road one day to see boys there with a lorry. He reckons there were 200 or 300 tyres on it, and they were busy throwing them into a cut-out bog beside our lane. He stopped and made them put the tyres back on the lorry again and take them with him, and he said that they headed back to Belfast with them. There are pheasants and snipe in that bog at the minute. If those tyres had been thrown in there, they would have been burnt because the whole place would have been set on fire and there would have been scorched earth left. I listened to the Department today, and I do not think it is really aware of what the problem is.
89. Take July as an example. We do not want to blame the people who are building the bonfires; the people to blame are those who ring up an area and ask whether they could do with a load of tyres. Boys from Belfast ring up and ask whether people can take a load of tyres. There was one 11th night bonfire at Kellswater that had over 1,000 tyres on it. Not only that, but it burnt for a month after that. People in the area were ringing me asking whether I could get the stuff moved, even though it was still burning. You cannot move it until it stops burning. That is the big thing.
90. As a farmer, I have a lot of silage bales. When I remove the plastic from those bales, I have to get it recycled and I have to have a waste transfer note for that. When I apply for my single farm payment, they can come round and ask what I have done with my plastic, and I can tell them I sent it to Emerald Isle Recycle at Groggan, and they will ask for a waste transfer note. These tyre
91. people, however, do not have a waste transfer note.
91. According to what I have picked up from the internet, I understand that, under the new Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011, waste transfer notes will be requested and councils will have the power to ask for them and that, if they cannot be produced, an immediate on-the-spot fine of £300 will be issued. I do not think the Environment Agency is willing to enforce that. I think they are only tinkering around the edges of it.
92. It is a really big problem for those of us who have to farm on the roadsides where people dump this stuff regularly. It is not only tyres; it is fridges, televisions, freezers, anything at all is being dumped through the hedges into our fields. Tyres are a major obstacle to us. Some people say that they think farmers can use the tyres to place over the silos. They could drive 50 yards up the lane and, if there is nobody living in the house, they could dump them in the yard. That would be a lot easier than me pulling them out of a sheugh. We do not want the tyres at all; very few farmers use tyres on their silos. I was very disappointed when listening to the Department today. I do not think they are at the game.
93. We are the only people standing between the Committee and their lunch, and I know Simon likes his grub. [Laughter.]
94. **Councillor Gallagher:** NILGA is here to represent all the councils in its membership. Our councils have very strong views on the actions necessary to address this problem. Hubert touched on the communications work that is necessary with the public, which I believe should be carried out through the Department's Rethink Waste campaign. There is an opportunity to do that. Aside from the public messages however, we have a direct and robust approach in dealing with operators who try to bend or break the law. I know that you are dealing with an extremely difficult issue here. We have no magic solution that we can give you, but parts

- of it can be tightened up through using common sense.
95. NILGA strongly supports partnership working. The report needs to be prioritised by all the agencies involved. On 19 October, NILGA and I will meet the Northern Ireland Environment Agency. Probably the best way to put it is that it will be an open and frank discussion. Hopefully, as a result of that meeting, some of the issues and concerns of local government in Northern Ireland will be resolved. With that, I wish you all the best in your task. I know that you have a difficult task ahead. If there is anything that I or we can do for members, do not hesitate to contact us. Thank you.
96. **The Deputy Chairperson:** The Committee very much appreciates input and evidence from local government because, as is the case in many such matters, local councils are at the front line in dealing with problems. If central government does not get it right, local government ends up dealing with the problem.
97. In your submission, you stated your preference for a producer-responsibility scheme, which we discussed earlier. You cited the example of battery disposal and how councils sometimes work on that. That might be a solution or part of a solution that we want to examine a bit more. I very much welcome that input from councils. It might be something that local government would be willing to support.
98. **Councillor Gallagher:** Irrespective of whether you are a good operator or a bad operator, if you have just bought tyres for £2 each, you know they will cost at least £1.50 each to recycle, and someone comes along and tells you that they can dispose of them for 50p each, that is very attractive. They are off your hands. It is like what is happening in Campsie. A farmer rented a barn to an individual thinking that he would use it for storage. The fella put over a million tyres in it and set it alight. Under our legislation, the farmer is responsible. That is unfair on him that he was caught out. That individual was able to circulate easily and gather up those tyres. That is the difficulty that you face.
99. **The Deputy Chairperson:** The attraction of producer responsibility is that you are dealing with a limited number of entities, whereas, at the moment, there are too many people in too many areas who are meant to be responsible for that, but simply are not.
100. **Mr Boylan:** Thanks very much for your presentation. I am glad that someone mentioned "sheugh" at this meeting; I thought that people had forgotten about me. It is nice to hear such language. It is a serious issue. I am glad that you highlighted it because people are indiscriminately stopping their vehicles in the middle of the countryside and firing tyres over hedges. There is a job of work for all of us. Most people go to their local local tyre fitter, especially in rural areas and small urban settings. The job of work is to try to bring them along to discuss the issue.
101. There are genuine operators out there who comply with legislation. Others, however, do not. We need to tackle the issue through the Committee, NILGA, local councils and local authorities, rather than making generalisations about every single operator. It is time that dumping in fields, beauty spots and other areas is stopped. It is ridiculous. People do not realise that it goes on. Until two major fires happened in the past 18 months, the issue was not being highlighted. Most people just lift tyres and take them away. There is a role for the Committee and councils to work with local communities in that respect.
102. **Councillor Nicholl:** In 2006, when tyres stopped going to landfill, we were told that there would be traceability in tyres. Certainly, our council was told that all tyre fitters would have to have their tyres marked and that our inspectors could go in to see them. If those tyres ended up on a bonfire, they would know that they came from x or whoever. That is not happening. There is no traceability with tyres. As John said, if you buy beef, you could find out which cow it came from within a few hours. Surely, tyres could be traced. No attempt is being made to trace them. Look at other countries such

- as Belgium, the Czech Republic, France, Greece, Hungary and Norway, which all have producer responsibility. If they can do it, it can be done and tied up a lot tighter than it has been here.
103. **Mr Weir:** Thank you for your presentation. I agree that some of the excuses that are used for traceability seem quite lame, to be perfectly honest. I appreciate that some people can go to some level forensically to make sure that there is nothing on the tyre that will identify where it has come from. However, if this means that those who are prepared to do this on a large scale are, at the very least, put to a higher level of inconvenience, it would be step forward.
104. You made a lot of very sensible points in your submission and mentioned the need to take this forward on a partnership basis, which everyone agreed with. However, I also get the impression from what you have written that there are some concerns that the response and level of co-operation coming from NIEA is patchy and seems to vary from area to area. Will you give us some more information on that?
105. **Councillor Gallagher:** Very briefly, Peter, because I have the authority only to speak about NILGA's position. One thing that councils do well is waste management. It would do the Committee no harm to look at the resourcing of NIEA and various facilities at local government to see whether they are the appropriate people to be doing some of the waste management that they are being asked to do. It is unfair on them, because they do not have the resources, expertise or the people on the ground. That is where progress can be made, because local authorities in Northern Ireland and local government officers have expertise in waste management that goes back a long time. Tell me anyone better who can find?
106. **Dr Tim Walker (Northern Ireland Local Government Association):** I thank the Committee for listening to us. This is a big issue, but it is really a subset of much of the fly-tipping agenda, which is also the subject of discussion between the NIEA and NILGA.
107. As the councillor said a minute ago, we will meet the Department shortly to discuss how to set up the working group to look at fly-tipping across Northern Ireland. It is imperative that, as we get further into that discussion, it is not just linked to the Department and councils. Others should also be brought to the table, be it the Department for Regional Development, the Department of Agriculture and Rural Development, the Farmers' Union, Translink, or whoever else. There is a huge issue with fly-tipping on a variety of properties and with a variety of material types.
108. We also heard about TVs, washing machines and everything else that is being dumped. Those are all valuable materials of one sort or other, and all have a further use. For example, tyres can be used for a variety of different things. However, we are turning a blind eye to some extent, and there has been an issue with resources, which the councillors mentioned, that we need to look at. We need to manage that much better in the future, and with the recent fly-tipping protocol, which identifies a role for discussion between the organisations — councils, the Department of the Environment and NIEA — we can hopefully start those discussions. They have been a long time coming.
109. **Mr Dallat:** The comments just made by Tim are very relevant. I hope that our inquiry, when it is finally agreed, broadens into the wider sphere of recycling.
110. Shaun illuminated — maybe I should not use that term — the Campsie issue. That was one of the biggest disasters that I have ever witnessed. We need to learn from that about the acceptable number of tyres that can be stored, if they are stored legally, and the conditions under which they are stored, so that never again is any community subject to the amount of pollution that poured out from there for weeks afterwards.

111. **Mr McGlone:** It is important that the communications, especially those between NILGA and the Committee, are kept open, particularly any conversation or dialogue that NILGA has with the Department on this. Quite clearly, with the inquiry that we are having, the dialogue that you engage in and the success or otherwise of it is important in how it feeds into what we are doing here.
112. I thank you for coming along today; it has been very useful. We have heard about the harsh reality today as opposed to the theory that we often get here.
113. **Councillor Gallagher:** We have given you coalface examples, because I am sure that you are inundated with policies and procedures. I thank you for the opportunity to give evidence on behalf of NILGA members and wish you every success in your dealings.
114. **The Deputy Chairperson:** Thank you all very much for your evidence.

13 October 2011

Members present for all or part of the proceedings:

Ms Anna Lo (Chairperson)
 Mr Simon Hamilton (Deputy Chairperson)
 Ms Paula Bradley
 Mr Willie Clarke
 Mr John Dallat
 Mr Danny Kinahan
 Mr Francie Molloy
 Lord Morrow
 Mr Peter Weir

Witnesses:

Ms Vivienne Donnelly	<i>Belfast City Council</i>
Mr Jim Hanna	
Mr Stephen Leonard	

115. **The Chairperson:** You are all very welcome: Stephen Leonard, environmental protection manager; Vivienne Donnelly, enforcement manager in cleansing services; and Jim Hanna, principal environmental health officer. You are very welcome. I invite you to give us a 10- or 15-minute presentation, after which members can ask you questions.
116. **Mr Stephen Leonard (Belfast City Council):** We thank the Committee for the opportunity to attend the meeting and welcome its inquiry into used tyre disposal. We at the council recognise that it is a significant environmental and health issue, and we hope that our submission will help to inform your work and any recommendations that come from it. I should state that our submission is based on our opinions as officers; it is not an official council position. It has not gone through the full council, so there is no official council position on it. The submission is based on our experience as enforcement officers. We have been asked to come here to represent our director, Suzanne Wylie.
117. I work in the council's environmental health department, and my principal role is to deal with air quality and

contaminated land issues associated with this type of activity. Environmental health also covers community safety. We do a lot of work with our good relations unit on bonfire management throughout the summer, and there are some good examples of work that we have done. I can answer questions about that as well.

118. The issues for us are the use of bonfires at particular times of year, the illegal dumping of tyres throughout the year and the impact that has on health and the environment. We also feel that the lack of a co-ordinated enforcement approach creates problems, and we would like to talk through some issues around that as well.
119. There are about 73 bonfire sites in Belfast throughout the July and August period. Forty-one of those participate in our bonfire management programme. Tyres were burned at only one of those sites this year. However, there are still 32 unauthorised sites. We are not quite sure of the number of tyres, but tyres are burned there. We know of one particularly big site where officers estimated that around 1,000 tyres may have been burned, so it has quite a big impact.
120. The situation has improved through the management programme that has been in place over the past five years. We started off working with eight sites, and there are now up to 41. Many of those sites are now mostly self-managed through a small amount of financial support from the council. We have also taken proactive action. We have written to tyre retailers this year to inform them of their responsibilities in the lead-up to the summer. We have also written to the Northern Ireland Environment Agency (NIEA) requesting more targeted enforcement. We will probably cover some of that later. Copies of that correspondence have already been sent to the Committee along with a covering

- letter from our director, Suzanne Wylie. I believe that that was sent in August.
121. The health and environmental impacts involved are well documented, which is why the legislation is in place. I have some background information for the Committee if members would like it. Various reports have been carried out. Again, we are happy to take questions, and hopefully we can inform you on issues. Vivienne will give an overview of the extent of the problem in Belfast, and we will then outline some issues or ideas that we feel would lead to better enforcement when dealing with the problem.
122. **Ms Vivienne Donnelly (Belfast City Council):** The Environment and Heritage Service carried out a survey in 2000. It showed that we do not know where approximately 30% of used tyres go. We submitted figures to the Committee indicating that, last year, we collected around 1,400 tyres that had been illegally disposed of around the streets and land in the Belfast City Council area. However, I have dug up more facts and figures for you.
123. Since 2008, Belfast City Council has disposed of almost 20,000 tyres. Over 8,000 of those were illegally dumped, and over 11,000 tyres were left at our council recycling centres by people who had opted not to pay the £2, or whatever the charge is, that retailers now charge for removing tyres. That is compounded by the fact that tyres are available around the bonfire season, but we do not have figures to show exactly how many tyres end up on bonfires. However, as we said, in the run-up to the season, the council wrote to the 49 tyre retailers that it is aware of to ask them to take account of their duty of care and responsibilities.
124. However, we know that more retailers than those deal with tyres. We estimate that over 140 businesses throughout Belfast have some dealings with tyres, but we do not have the powers to tackle the owners of those premises proactively by inspecting their premises in the same way as we would if we were inspecting premises for compliance with food hygiene or health and safety requirements. That said, we do not believe that the inspection of transfer notes under the duty of care legislation, for example, will, in the absence of other measures, adequately address the problems of tyre management.
125. Our submission, as Stephen has indicated, is intended to highlight the fact that the issue is a Province-wide one and transcends council boundaries. For example, a business in Belfast is likely to take tyres outside Belfast and dump them in a field. We believe that an enforcement strategy should be developed that enables officers to critically examine the audit trail of tyres from distribution through to disposal. In our view, that requires a team of people who have the expertise to examine the turnover of a tyre retailer or a haulier and reconcile that with the quantities of new tyres that come into the business alongside those that end up being removed from that business for disposal.
126. We believe that the NIEA is best placed to deal with this matter as the lead regional agency, as it has the expertise when it comes to dealing with organised crime and can tap into other ex parte resources that may be required to carry out satisfactory investigations. That can be linked to the work that it does through its other functions, which involve the licensing of waste carriers and waste disposal facilities, where some tyres can end up.
127. Notwithstanding that, the council believes that it is a good source of local knowledge and intelligence. Although we cannot speak for all the other councils, we can say that Belfast City Council would be happy to support any enforcement initiatives and work in partnership with NIEA to deal with the issue of tyre disposal. That approach works well in other legislative disciplines. For example, there is a protocol in place between councils and the Food Standards Agency (FSA) to deal with illegal meat trade investigations, whereby the FSA may take the lead in an

- investigation but would enlist the help of the council as part of that investigation.
128. The enforcement element of tyre disposal is but one aspect of it. We believe that, as part of any tyre management programme, that needs to be looked at in a wider context and, perhaps, underpinned by exploring issues such as traceability and the “producer pays” principle. In our opinion, the voluntary arrangements in place whereby the retailer charges a £2 fee for the disposal of tyres should be reviewed as part of this process, perhaps with a view to imposing a mandatory tax that the retailer must charge for the proper disposal of tyres.
129. Thank you for taking the time to listen to our views. We will endeavour to answer any questions that you may have.
130. **The Chairperson:** Jim, do you wish to make a presentation?
131. **Mr Jim Hanna (Belfast City Council):** No.
132. **The Chairperson:** OK. Thank you very much. There are lots of ideas there. Partnership working is a good way to go about things. You mentioned that you collected 20,000 illegally dumped tyres. What do you do with them?
133. **Ms Donnelly:** Over 11,000 of those were collected from our recycling depots, where people just left them instead of leaving them with retailers. The council pays for those to be taken to a company in Craigavon, where they are recycled. The same goes for tyres that are illegally dumped; they all go to be recycled.
134. **The Chairperson:** Why go to Craigavon? Why not use a firm in Belfast?
135. **Ms Donnelly:** They are recycled in Craigavon. I do not know the ins and outs of it. It is a firm that specialises in recycling.
136. **Mr W Clarke:** Thank you for your presentation. That course of action costs the council a considerable amount and is not the best use of ratepayers’ money. How many prosecutions have there been in your council area for burning tyres and dumping tyres?
137. **Mr Leonard:** I am not aware that there have been any prosecutions for burning or dumping tyres.
138. **Mr W Clarke:** I am not trying to put you on the spot; I am just trying to tease out the fact that, from my point of view, enforcement does not exist. No effort is being made to trace where those tyres are coming from. I am not making a political point. The same happens at Halloween and during other celebrations. I just do not think that there is a willingness on the part of the Environment Agency to deal with the issue, and I believe that other statutory bodies do not feel equipped to deal with it. I think part of the reason that the inquiry came about was clear frustration that the lead organisation is not dealing with it in a sincere and robust manner. I do not want to put you on the spot again, but how effective do you think the Environment Agency’s enforcement is? It is an inquiry, so I have to ask.
139. **Mr Leonard:** We have written to the agency and highlighted the issue. We got the reply that it had other priorities regarding enforcement and what it does. We recognise that there may be resource issues at NIEA as well, so we do not really want to be too hard on it in relation to that, but we feel that a lot of the problems in Belfast arise because there is not enough enforcement higher up the chain to stop the supply of tyres.
140. **Mr W Clarke:** Obviously, there is a European directive that deals with the moving, disposal and burning of waste. There are huge issues around European directives. I do not think that the issue is being dealt with in a satisfactory manner, and, from what I hear in your response, you agree with that. How many complaints do council staff in the environmental health department get about the burning of tyres, particularly from people with health problems, such as asthma?
141. **Mr Hanna:** I do not have precise numbers, but we get a relatively small number of complaints about the burning of tyres. We get some complaints about the dumping of tyres leading up to the

- burning of them. Vivienne may be able to give you figures on that.
142. **Ms Donnelly:** Up until a few years ago, around 75 to 80 people a year would complain about the dumping of tyres, but the number of complaints has gone down in the last three years. This year, I think that we had 25 complaints about the wider issues around bonfires and material appearing in odd places, such as streets and entries.
143. I would like to answer a question that you asked earlier. We have taken action against people for fly-tipping at sites. We were successful in imposing a fine of £750 on someone who illegally dumped material, although that was ordinary garden waste, not tyres. We have also fined a builder who dumped material. We found evidence and took him through the courts. We are limited in what we can do because we do not have article 4 powers at the moment, so we have to take our cases under the Litter (Northern Ireland) Order 1994. The fines are smaller because of that, but, with the review of the fly-tipping protocol, we will hopefully get the powers to deal with those individuals through the Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011, under which the fines are bigger.
144. **Mr Leonard:** There has been a decrease in the number of complaints, but the bonfire management programme has probably had an effect on that. The groups involved are grant-aided, and we find that the people who run the bonfires now manage any waste that has been deposited at their sites. The council supports them in that, and, as a result, we find that there are fewer problems associated with bonfire sites.
145. **Mr W Clarke:** What is your relationship with statutory agencies such as the Housing Executive and housing associations? When waste is dumped on their land, there is obviously an onus on them to remove it. In my opinion, that does not happen; a blind eye is turned to that as well.
146. **Ms Donnelly:** We have good working relationships with all those agencies. At that time of year, in the run-up to the bonfire season, we ask them to remove the materials. Roads Service is very proactive in removing materials, but it sometimes depends on the nature of the area; Roads Service cannot always respond positively and go in to remove materials.
147. **Mr W Clarke:** Would you call the PSNI to help to remove the materials?
148. **Ms Donnelly:** I do not know about those agencies. I know that, in the past, the council has removed materials from its own land, and there have been consequences in that the health and safety of council staff has been compromised. It has created difficulties from that point of view.
149. **Mr W Clarke:** I understand that there are health and safety issues. Obviously, people could be threatened. The point that I am trying to make is that the Housing Executive is a statutory body, and, at times, it allows waste to be dumped and burned on its land, which is a clear breach of European directives. Maybe that is not a question for you to answer; it may be one for the Department. Perhaps you do not want to comment.
150. **Ms Donnelly:** It is difficult. It is true to say that, because of the bonfire management scheme that operates in Belfast, in theory, every bonfire is illegal and contributes to the pollutants in the atmosphere. However, we have tried to embrace the issue in a positive manner to try to get people to reduce the amount of hazardous materials that are being burned, and that is why membership of the bonfire scheme in Belfast has increased over the years. More communities have come on board and fewer materials that used to be dumped, such as fridges, appear at those sites. However, a number of bonfire groups and communities have not come on board, and they are the ones that are still burning tyres and such like.
151. **Mr W Clarke:** I do not want to come across as being totally negative. I

- appreciate the efforts that councils are making, and it can be a difficult situation at times. A number of issues, such as beacons, have been introduced. I think that putting inert material, such as clean wood, on a bonfire is acceptable to the public. The point that I am trying to make is that the dumping of waste is unacceptable.
152. **Ms Donnelly:** There is an inter-agency meeting in the run-up to the bonfire season. Agencies meet around the table and, as far as I know, contribute positively. However, there is a wider issue that all the agencies need to be involved in, and it concerns not just bonfires but fly-tipping in general, where it occurs on their properties. Hopefully, that will be addressed through the fly-tipping protocol. More of those agencies need to be brought on board and included. Enforcement is not just a matter for councils and the NIEA; it is a collective thing that all the agencies need to be involved in.
153. **Mr W Clarke:** I am conscious that, under the Litter Order protocols, there will be a greater onus on councils to deal with the fly-tipping of small amounts of waste. So, again, there will be a financial burden on ratepayers.
154. **The Chairperson:** You mentioned Belfast City Council's bonfire management scheme. It has worked very well, but you said that there are still a large number of illegal bonfire sites. What measures have you taken to try to encourage the groups involved to come into the scheme?
155. **Mr Hanna:** We have a good relations officer who goes around and speaks to people at the various sites, and that has proved very positive with the sites that have come on board so far. However, you can lead a horse to water but you cannot make it drink, and some sites are not interested.
156. **The Chairperson:** Are there no sticks or carrots?
157. **Mr Hanna:** There is a financial inducement, but it is not a significant amount of money.
158. **Mr Leonard:** In the five years since the introduction of the scheme, the number of sites has increased from 8 to 41. Therefore, there has been an improvement each year, and the scheme is having some impact. However, it is a voluntary scheme, and it is based on grant-aiding bonfire committees, which will become self-managing and self-empowered. It has worked; it has had success in that there are materials that no longer appear at authorised sites.
159. **Mr Molloy:** First of all, I expected Belfast City Council to be here as elected members. I see the city council as a body of elected members, and I am disappointed that none of them is here. Maybe you will bring that issue back to the council.
160. **Mr Hamilton:** They are all very busy.
161. **Mr Molloy:** I know that they are very busy, but elected members should be recognised as the voice of the council. You made the point that the council would give its support, but I do not know how you can say that without the council having met to decide that it will. We need to move away from the idea of council officers making decisions and instead have elected members of the council making decisions. That is maybe a side issue, but it is important.
162. Does the council have an environment committee?
163. **Mr Leonard:** Yes, that is correct.
164. **Mr Molloy:** Is there a chair of that committee?
165. **Mr Leonard:** Yes.
166. **Mr Molloy:** Why are members of that committee not coming forward here? They are the ones who make the policy.
167. **Mr Leonard:** I am not sure. An original letter came in from the inquiry that went to our director Suzanne Wylie, who replied to it. In that letter, there was a request for someone to attend, and we were asked by our director to do that. There probably was not time to put the issue through the committee process and get a council position, but we

- thought that we would still come along and try to help to facilitate.
168. If the Committee want the council to come before it, we will take that information back to the council. The council will form a position on it. In the summer, we received an initial letter requesting information. We replied to that letter in August, and we have been asked to come to the Committee today. We have been asked by our director to be here, but I imagine that the problem is time and getting it through the council committee process.
169. **Mr Molloy:** Legislation on dogs was put through the councils, yet we found that there was no consultation by the Department of Agriculture and Rural Development on that legislation, despite local government being expected to pick up the bill afterwards.
170. In relation to the power to follow up the £2 charge that retailers add, would you welcome local government having the power to be able to follow things up and have traceability for tyres?
171. **Ms Donnelly:** We would welcome traceability being introduced into the situation. Councils on their own could not tackle the issue effectively because it transcends council boundaries. Councils will be in a position to help out at a local level and to go into those retailers and check their paperwork, but a more strategic approach on a regional level is required to deal with the problem.
172. **Mr Molloy:** What effect would the collection of tyres have on your NILAS targets or your European waste collection targets?
173. **Ms Donnelly:** I cannot answer that. We will have to come back to the Committee on that.
174. **Mr Molloy:** Twenty thousand tyres is a large number to collect. The problem I see is related to tyres that do not come from within your own council area and, therefore, skew your targets. The cost of collecting and disposing of 20,000 tyres comes back to the councils. Do you have any idea of the cost of that?
175. **Ms Donnelly:** Each tyre costs at least £1 to dispose of. If a tyre is attached to a rim, it costs the council between £1.50 and £2 to dispose of.
176. **Mr Molloy:** If the council takes the tyre off the rim, it will get money for scrap metal.
177. A colleague mentioned a European directive a number of times, and Belfast City Council has a European department. Has there been any consultation on the European directive and on how to enforce it within the council?
178. **Ms Donnelly:** I would have to check that with the waste management section, which has oversight of that function, and report back to you.
179. **The Chairperson:** Francie mentioned policy. We are looking for the experiences of the council through facts and figures. We want to know how many tyres you collect and how many you know have been illegally dumped, and how many you do not know about. That is what we are looking for rather than the council's policy.
180. **Mr Molloy:** I object to that completely. If the Committee writes to a council asking for evidence, the chair of that council's environment committee or someone from the relevant part of the council should appear before the Committee. The primacy of elected members needs to be recognised in this situation.
181. **Mr Leonard:** In normal circumstances, it would be representatives from council committees who would attend the Committee. It would usually be whoever is mandated by the committees to speak on behalf of the council. This is one instance in which that has not happened, and I do not know why. Normally, most of our responses will go through our committees and our full council where they are discussed. Apologies for that, and I will take that back.
182. **The Chairperson:** You have submitted your written report on the inquiry to us anyway.
183. **Mr Dallat:** I do not want to take issue with Francie, but I am glad that the city

- fathers were not here, because that was one of the best presentations that we have had. It was clear; it was succinct; you identified the problems; and you also suggested solutions. At the end of the day, we want a report that we can make available to other people. Do not feel one bit bad about that.
184. **Mr Molloy:** If we devalue ourselves, we can only expect others to devalue us more.
185. **Mr Dallat:** I wanted to pick up on a couple of issues, one of which is traceability. A previous witness suggested that it just does not work. Is it possible, by microchipping, watermarking or by another means, to have a system whereby you could identify the hire depot that collects the money, pockets it and makes tyres available to people to take away and burn? Do you feel that that is possible?
186. **Ms Donnelly:** Yes. It is possible that a council or any enforcement body could go along and ask to be shown transfer notes for the past six months, and those notes could be produced. The difficulty is that there might be a little side store in which a certain number of tyres are stored. We do not know that. Unless you have access to books and do a full audit to find out what is coming into the business and what is going out, and do a tally to reconcile those figures, you really have no way of knowing for sure about the effectiveness of the disposal process. I feel that we would be at a loss if we did have the power to go in and do that. Somebody such as an accountant needs to be able to go in and ask to be shown dockets on what has come into the business and what has been disposed of.
187. **Mr Dallat:** Stephen, I picked up on your point about environmental health. I want to ask about that because that issue comes up in Coleraine time and time again, particularly with older people and the fallout from burning tyres whereby residue collects on roofs, spoutings, and so on, for weeks, even months, after they have been burned. Do you deal with that issue?
188. **Mr Leonard:** There is no research on that. All our knowledge has been gathered by our own air quality monitoring stations in Belfast, which have shown rises, particularly during the July period, when there is a large peak in particulate matter. Normally, the annual mean level is around 50 micrograms per cubic metre. We have shown that, around 11 July, that rises to around 320 micrograms per cubic metre. That is an initial hit, which disappears by the morning. Within that time, obviously, the risk is that any toxins that are in the fire, combined with poor combustion, will entrain into the small particles, and people will breathe them in. Nobody has ever quantified whether there is a long-term risk or what the short-term risk is for people who stand around a fire and are exposed to that. We simply know that a lot of nasty chemicals will be produced as a result of poor combustion in the fire. Those chemicals will be carried off in the smoke, and particulate matter will come from it.
189. **Mr Hanna:** I want to point out that we monitor air quality throughout the year. During the winter, especially at times of anticyclones, there could be levels that would significantly higher than they would be on 11 July, 12 July or 8 August.
190. **Mr Dallat:** Chairperson, we need to address that issue.
191. Finally, I was intrigued by the number of tyres that turn up at your recycling depots. Can the public take tyres there and dispose of them for free?
192. **Ms Donnelly:** Yes. Strictly speaking —
193. **Mr Dallat:** Therefore, the obvious thing to do is not to pay the tyre depot £2 per tyre.
194. **Ms Donnelly:** Strictly speaking, people are not supposed to come into council depots. However, I think that the decision has been taken that, rather than finding tyres dumped in an entry, depots may as well accept them.
195. **The Chairperson:** Do you mean that the council accepts tyres or that they are just dumped there?

196. **Ms Donnelly:** No. Tyres are brought to depots, and I do not think that they are turned away.
197. **Mr Dallat:** Chairperson, I am interested in that because I live in Kilrea. If you go half a mile in one direction, you are in Ballymoney Borough Council's area. If you go half a mile in the other direction, you are in Magherafelt District Council's area. I can imagine that there are some serious tyre imports.
198. **Mr Weir:** Which has the best service?
199. **Mr Dallat:** Unfortunately, Coleraine Borough Council provides the best service, so it gets the most refuse. Thank you very much.
200. **Mr Kinahan:** Thank you very much for your presentation. In Antrim Borough Council, we had a problem with identifying certain areas when we did not know who owned the land. If it was private land, we could not go onto it to remove tyres, nor could we do so if we did not know of any owner. How often is that a problem in Belfast?
201. **Ms Donnelly:** At present, it is a problem because there is quite a lot of vacant land. The issue in Belfast is usually that property was bought by developers who have now disappeared off the scene and have gone into receivership. We are left with that land. We do not know whether the bank owns it or against whom to try to direct any enforcement activity. Therefore, we also have those problems in Belfast.
202. **Mr Kinahan:** You cannot get onto land if it is privately owned.
203. **Ms Donnelly:** No. We would have to try to find out the ownership or to work through the bank or liquidator to try to get action. Perhaps you have something to say about that, Stephen?
204. **Mr Leonard:** We had a separate environmental issue on a site that had gone into receivership. Certain materials had been dumped on it. We had to take action to serve notice and to default on work to remove those materials from the land. That has been protracted because we have had to work through the banks, the National Asset Management Agency (NAMA), and so on, to try to find out who is responsible and to determine the recovery of our costs. It is a complicated issue for us at present.
205. **The Chairperson:** Thank you very much indeed for your presentation.

13 October 2011

Members present for all or part of the proceedings:

Ms Anna Lo (Chairperson)
 Mr Simon Hamilton (Deputy Chairperson)
 Ms Paula Bradley
 Mr Willie Clarke
 Mr John Dallat
 Mr Danny Kinahan
 Mr Francie Molloy
 Lord Morrow
 Mr Peter Weir

Witness:

Mr Peter Taylor *Tyre Recovery Association*

206. **The Chairperson:** Good morning, Peter. Is it only you who is attending? Your colleague Lynn Kerr is listed to appear.
207. **Mr Peter Taylor (Tyre Recovery Association):** She was not sure that she could manage to come, so I assume that she is unable to.
208. **The Chairperson:** The Committee met Lynn when we visited the company. Peter will give a 10-minute presentation on his experience, and we will then open the meeting to questions from members. I am sorry to have kept you back a bit.
209. **Mr Taylor:** Not at all. With your permission, I will begin by concentrating on some of the generalities. I have some insight into the situation in Northern Ireland, but I do not pretend to be an expert on Northern Ireland in the way that Lynn and some of our other members are. Some of the generalities that we will discuss might provide guidance on how to deal with some of the problems that you have had.
210. I am the secretary general of the Tyre Recovery Association, which represents collectors and processors across the UK. Collectively, we handle around 80% of all of the end-of-life tyre arisings that occur each year. In 2010, that was the equivalent of some 437,000 tons. We can talk about the other 20% later.

211. I am sorry if I am teaching you about things with which you are already familiar, but the landfill directive, which came into force in 2005, finally prohibited the landfilling of tyres in any form. The landfill directive also brought with it the notion of producer responsibility for tyres. Tyres are one of the few waste streams that now has a 100% obligation to recycle, reuse or recover. We try not to talk about disposal, but it is a hard word to avoid; valorisation is a nicer word.
212. I will talk about the approach that we have taken in the UK. I say "we" advisedly, because it was largely the UK Government who decided that that was the way that we should move forward here. Our approach is based on a voluntary form of producer responsibility; that is important because there is a hidden nuance that causes a lot of confusion. You would think that, across the European Union, the interpretation of producer responsibility might be uniform, but it is not. Some countries have adopted what might be termed as strict producer responsibility, where a tyre manufacturer is directly responsible for recovering an equivalent number of tyres that the manufacturer has sold new. Therefore, if half a million new tyres are sold, there is an obligation to recover half a million tyres. In a moment, we will come to how that obligation is fulfilled.
213. In the UK, that is not the route that the Government chose to take. We have what is rather whimsically known as a pull system, whereby everyone in the recovery chain, starting with the new tyre manufacturer through to the retailer, the retreader and the collector shares producer responsibility. Therefore, it is a universally shared responsibility. The more you get involved in the problems of the recovery market for end-of-life tyres, the more important that concept becomes.

214. Across Europe, some countries have opted for a strict form of producer responsibility. In simple terms, we could call that the push form because it normally involves new tyre manufacturers putting a small charge on an invoice when a tyre is sold to a dealer. Down the line, there is a free take-back scheme, in the same way that we handle end-of-life tyres in this country.
215. However, that scheme has some weaknesses. Here, we use the pull scheme, and there is a generalised obligation on everyone at the end of the chain — the retailer, the vehicle dismantler and the used tyre collector — to ensure that tyres are recovered 100% and in an acceptable manner — in other words, that the recovery is valorised in one form or another.
216. A few countries — Holland is perhaps a good example and one or two Scandinavian countries — have a tax-based approach. The Government set a tax every year or every couple of years, and the money goes into a central pot, which magically funds recovery. None of those approaches is perfect. The way that we do things in the UK has some advantages because the first issue that we need to understand about the UK tyre market is that it is highly multi-branded. There are at least 200 brands of tyres in circulation at any one time, and, if the strict approach is used, it becomes rather difficult to identify all the players. Many people typically get under the wire, and that can be illustrated very clearly through our national figures.
217. The UK generates about 540,000 tons of used tyre arisings every year. That figure comes from the Department for Business, Innovation and Skills: it is not an industry figure. The declared figure for France is something like 385,000 tons. The last time I was in France, it was a similar size to the UK, so there is clearly an arithmetical deficit in the way that France handles its approach to producer responsibility. Therefore, although there are some weaknesses in the UK system, which relate mainly to enforcement issues, the way in which we operate — I am choosing my words very carefully — has the ability to finger everyone in the recovery chain.
218. At this point, I will come to the issue of enforcement because that is vital in every system. I am not aware of any recovery system that operates effectively without enforcement. Even the so-called prepaid take-back schemes, such as those that operate in France, operate to a deficit. The French scheme had to close its gates last year because it was being faced with the need to recover far more tyres than it was paid to do by its subscribers. We do not have that situation here. Equally, in those kinds of approaches, there is no easy way to tackle tyres sold over the internet, which is a growing feature of the marketplace. That is not a factor in the way in which we approach things here, because, sooner or later, a tyre comes off a wheel, whether at a tyre retail premises or at a vehicle breaker. We know where to look for that. However, there are elements of rogue activity, which every business experiences. That is what we have to try to eliminate as much as we can. We can do that fairly effectively, probably to the 95% mark.
219. About 10 years ago, when we were looking, as a country, at our approach to tyre recovery, the Tyre Recovery Association and its members decided to put together a best practice scheme — an industry scheme, not just ours — known as the Tyre Industry Federation's responsible recycler scheme. Its membership has grown from an initial one to about 34 people today, and we have two members in Northern Ireland; Lynn is one of those. That scheme was intended to introduce the key elements of best practice and has succeeded in doing so. Our members are audited annually for regulatory compliance, site compliance and traceability. I can tell you that, over the years, the standard has improved quite dramatically. I can share an audit document with you if you wish, just to give you an idea of how it works.
220. The scheme has been central to the way in which the UK has approached its responsibilities. It deserves to be

- built on further and supported across the UK. I would like to see a more widespread use in Northern Ireland. There are particular problems here, such as cross-border movements to and from the South. The South has its own quite serious recovery problems, which I hope it is in the process of addressing. It is most important that we understand what those problems are and how they cause problems here and on the mainland.
221. The responsible recycler scheme has been vital to the way in which the tyre industry has approached the issue of recovery, to the point at which, in England and Wales, we are in negotiation with the Environment Agency to form what is termed in the jargon as a "responsibility deal". It is almost like VAT collection; in other words, we audit our members, share the results of those audits with the Environment Agency and, essentially, do a lot of the agency's work. That means that the agency can concentrate its depleted resources on those sectors of the market in which we know that issues must be addressed and rogue activity stamped on. Have I said too little or too much?
222. **The Chairperson:** Thank you very much for that overview. We have certainly seen a trend, and those problems are growing in Northern Ireland. We do not seem to have many statistics about how many used tyres are being disposed of, and how. The Committee's inquiry is a timely exercise. We went to a couple of sites last week and heard about an incident in which a rogue trader hired a van, went around undercutting prices to collect used tyres from dealers and fitters and then dumped all those used tyres in the van. He collected lots of money, dumped the tyres in the van and walked away, leaving the owner with thousands of used tyres to dispose of.
223. **Mr Taylor:** That is not uncommon, even across the water. Used tyres do not materialise out of the ether; they come off a vehicle's wheels, either at a retailer's premises or at a breaker's or dismantler's yard. It really does bring us full face up against the issues of enforcement, how we target enforcement and eliminate what we call "white van man". Sometimes they are even cleverer than that. They do not dump the tyres but rent barns and warehouses, fill them up and then walk away, and people do not notice anything until they are sitting on a pile of thousands of tyres.
224. **The Chairperson:** It is then left to a farmer or a local council to deal with those tyres.
225. **Mr Taylor:** Those are elements of bad practice that best practice, if it is fully endorsed by everyone in the business, can help to eliminate. I used to be involved in promoting tyre and road safety, and we used to calculate that there was always that last 10%, half of whom are wilful and half of whom are ignorant. The issue of ignorant people can be addressed, but the issue of wilful people will not go away, and it requires constant vigilance and enforcement. Whatever approach is taken to used tyre recovery, there is no way of avoiding the need for rigorous enforcement.
226. **The Chairperson:** Absolutely. You are obviously aware of the practices of the Environment Agency in England. How do you compare our practice with English practice?
227. **Mr Taylor:** I do not live in Northern Ireland, so that is almost an unfair question. Perhaps the levels of enforcement have been less here than they have been in England and Wales. I would also say that there is a considerable [*Inaudible due to mobile phone interference*] element that is hard to control because of problems with the recovery programme in the South. I am not sure whether you are aware of those problems, but there is a licensing scheme in the Republic, the tyre recovery activity compliance scheme (TRACS), which is handled through the counties. However, it has one great weakness: it lacks any form of traceability. People can apply for a collector licence and collect tyres to their heart's content, but no one ever checks on what those people have done with the tyres afterwards. Some of the tyres accumulate on farmland. I

- am sure that some of them come here. Some of the arisings in Northern Ireland are baled and sent to the mainland for processing. There is nothing wrong with that. There are markets in used tyres, and we need to understand that.
228. It might be helpful if I took 30 seconds to explain what happens to used tyres. Tyres are an important source of energy. They have a calorific value that is quite similar to coal, so cement companies like them very much, especially car tyres. Truck tyres are not suitable for cement kilns, but if car tyres are fed whole into a kiln or as chip or shred, they are an important form of fuel and can improve the quality of the burn in kilns, although kilns need to be modified with scrubbers, and so on, which it is relatively costly. In the UK, about 40% of car tyres end up in cement kilns.
229. Others are shredded and used for horse manèges and for engineering uses. There is an engineering use for baled tyres in landfill cells, and they can be quite effective in that context. Around 20,000 or 30,000 tons go down that route each year. There is more meat on a truck tyre, and most of them are used for sports surfaces, playgrounds, flooring materials, belting and the like. It is not difficult to valorise end-of-life tyres. There is not a shortage of markets or applications for them. There is a get-rich opportunity for white van man to do exactly what you described.
230. **The Chairperson:** We saw a couple of good examples of companies recycling tyres, such as making them into little sheds and bales and retreading the tyres. It was very interesting.
231. **Mr W Clarke:** Thank you for the presentation. You touched on a couple of points that I was going to ask you about. Across the water, is there any reuse of tyres for aggregates for roads infrastructures?
232. **Mr Taylor:** I wish that I could say yes, and I do not know why the UK has been slow in developing rubberised bitumen. Three or four years ago, some work was done to try to get that going. Other countries have been very successful in using rubberised bitumen in specific circumstances. It is very useful as a layer on top of concrete highways, which tend to craze after a period of time. It has been used extensively for that purpose in Arizona, where there are lots of concrete highways. The great thing about rubberised bitumen is that it is more flexible in cold weather, quieter and longer lasting. The downside is that it is around 10% more expensive than normal bitumen. It is totally recyclable. You can heat it, scrape it up and relay it. It is the great missed opportunity.
233. **Mr W Clarke:** I agree. We can look into that in more detail. Your submission mentions the baling of tyres for reuse on motorway embankments, for preventing coastal erosion and for flood management. In the North, there seems to be a different interpretation. Baling is the most basic way to reuse tyres. We visited a company that had severe problems with the Department of the Environment to allow that to take place. What is the situation across the water?
234. **Mr Taylor:** There is some nervousness about the use of baled tyres.
235. **The Chairperson:** Someone has their mobile phone on, and it is affecting the recording. They need to switch it off.
236. **Mr Taylor:** The Environment Agency in England and Wales has been concerned about the use of bales in certain circumstances. The perception of the available markets is greater than the reality, and the markets for embankments, and so on, are relatively small. They have been used in coastal erosion projects, but that is not a consistent business. They have also been used in temporary roadways, but there are some concerns about that because of questions over whether that is permanent or temporary recovery. Of course, once the tyres have become contaminated with soil, mud or oil, they become much more expensive to recycle.
237. **Mr W Clarke:** You and the Chairperson mentioned people getting a waste permit or licence and storing large

- volumes of tyres. How big a problem is that across the water? In my opinion, it takes a considerable time to build up large tyre mountains.
238. **Mr Taylor:** It has been a problem, but it is much less of a problem now. I think that that we have very few of those left. However, our Environment Agency in England and Wales is not always quick off the mark. It is far more alert now than it was in the past, but, quite often, the whole process took three years from the moment that an illegal pile was signalled to the agency to the point at which it achieved a prosecution. There are all sorts of reasons for that, but it has speeded up, and it is less indulgent with the initial excuses and storylines that it is fed.
239. We have hardly any large dumps now. Quite often, people go around baling tyres, and there have been some big instances in the past 12 months of those bales simply being stored in barns and the like, and currently some major prosecutions are going through. Therefore, the way that we work with the Environment Agency in England and Wales is that we feed it with names. If we acquire some intelligence or our suspicions are awakened, we simply pass that information to the agency. It has a waste crime team that has become quite knowledgeable on the subject, and it is doing a very good job. It had a one-year funding programme that focused entirely on tyres, which was very effective, and it knocked out a lot of the obvious suspects. That finished in March, but the team has not just walked away from it. It has maintained an ongoing interest and expertise in the subject, and, by working closely with it, the problem is now containable.
240. **Mr W Clarke:** I agree with you. Obviously, the information has to come to the enforcement agency, but there has to be a robust response. That is the key to this matter. On site visits, the industry tells us that a major issue in the North is that we have become a dumping ground for cheap, eastern European tyres and tyres from China, whereas across the water, it is more robust. The industry basically said that second-rate tyres are being dumped in the North.
241. **Mr Taylor:** Dumped?
242. **Mr W Clarke:** Not dumped. Sorry, that is the wrong word. They were actually being sold in the North.
243. **Mr Taylor:** I would question that. I also run an association for new tyre companies, and there are very few bad tyres these days. You might say that some are undoubtedly better than others, in the same way as you might say that a Bentley performs better than a Ford Focus, but neither is dangerous and neither is second rate. There are very few second-rate tyres. However, I think that the Irish market generally, North and South, is not brand-minded; the market on the mainland is not very brand-minded either, but perhaps it is a bit less so here.
244. That is another reason why the pull approach is very important. It works better in your context. The choke point becomes the end of the chain — the point when the tyre is taken off the wheel, wherever that may be — whereas if you tried to identify the importer of one of those 200 or 250 brands in the marketplace, you could be chasing that rainbow all day. It is not easy to do that. That is one of the significant weaknesses of the strict producer-responsibility approach that we see in countries such as France and Spain.
245. If I have one concern for you here, it is that there are large dumps in the Republic. I know that you have large dumps in Northern Ireland, but I am told that some in the Republic are even larger. If Ireland generally has a recovery deficit in the sense that it does not really have the capacity to process all of its arisings locally, some of them have to go elsewhere; they have to be exported to the mainland or beyond. There is not necessarily anything wrong with that provided that it is done legitimately and with the requisite international permits. However, getting back to the situation in the Republic, I suspect that, if they

- do have a clear-up campaign there, the easy thing to do would be to send those tyres north because, in the weird way that all of that operates in the EU, export is counted as recovery. I really need to be blunt about that because it is something that you have to consider and watch out for.
246. **Mr W Clarke:** On the point about crossing borders and taking tyres into different jurisdictions, how does that affect the environment agencies in Scotland, England and Wales? How do they co-operate?
247. **Mr Taylor:** They co-operate pretty closely. I would say that there is probably a bit more of a time lag between England, Wales and Northern Ireland than there is between England, Wales and Scotland. We have the Used Tyre Working Group, which is an industry/government group that meets three or four times a year. Both the Scottish Environment Protection Agency (SEPA) and the Environment Agency here have open invitations to attend and participate in the working group. Perhaps it would be difficult to come to every meeting. However, it would be very useful if there were more contact and awareness of the issues that we are considering and, indeed, the successes that we have had. It is certainly not a negative story. For a voluntary scheme like the responsible recycler scheme to achieve 80% coverage is commendable, if I do say so myself. I do not see the packaging industry, which has a mandatory scheme, achieving that kind of percentage.
248. We welcome more involvement from the devolved Administrations. We would all benefit from that because there is a tendency in far-off London to have very little idea about what happens here and, perhaps, even, to care less. However, I care. I have members here. They call me with their problems and issues. They would be much easier to deal with if there were perhaps a more general understanding of the nature of the business.
249. **The Chairperson:** You mentioned that it is perhaps too easy to grant people licences to collect tyres. Should we be stricter?
250. **Mr Taylor:** I hear that complaint from my members, yes. They tell me that it is too easy to get an interim licence. Having that licence confirmed may take up to a year. In the meantime, people are running around, doing whatever they are doing. They may be perfectly legitimate. On the other hand, they may not be. So, I would like there to be further spread of the responsible recycler scheme to Northern Ireland. We can do the work for you. Our members are audited, and they pay for their own audits. They have an interest in doing things correctly, and they can relieve the burden on your enforcers.
251. **Mr Hamilton:** I have a question about the fee-charging regime in Great Britain. As public consciousness of the issue is heightened, people will start to ask questions — I know that I have — about the fee charged by tyre retailers and about how the cost to recycle is, more often than not, significantly lower than the fee charged by the retailer. How is that issue dealt with in Great Britain? We see evidence that retailers charge £1.50 or £2 for each tyre. However, as we experienced on our recent visit, the cost at the gate of the recycler is significantly lower.
252. **Mr Taylor:** The answer is that it is not dealt with in Great Britain because there is a market-based approach to recovery. However, you are absolutely right; most retailers charge the consumer significantly more for the environmental charge or the green fee or whatever you want to call it. They pay for recovery themselves, which, of course, is a bone of contention with collectors. We would be able to valorise the whole recovery infrastructure more if it were better funded. One of the reasons that it is not better funded is that retailers retain a high proportion of the recovery charge.
253. **Mr Hamilton:** It is a constant problem. No matter what overall system is in place, here or elsewhere, there seems

- to be that issue of the discrepancy or arithmetical difference between —
254. **Mr Taylor:** Under the voluntary approach to producer responsibility — it is the universal approach — retailers have just as much responsibility to behave responsibly as new tyre manufacturers, collectors or reprocessors, but they often lose sight of that. It is true to say that, when there are prosecutions, they rarely go beyond the rogue collector. However, the tyres have come from somewhere, and the retailer who supplied them has probably ignored his duty of care.
255. **Mr Hamilton:** The retailers' duty of care is enhanced because they take that fee. The public expect the tyres to be dealt with properly.
256. **Mr Taylor:** Perhaps one or two exemplary examples would change things a little bit. Retailers have always been a little detached from their obligations.
257. **The Chairperson:** It is too easy to let the used tyres go to anyone.
258. **Mr Taylor:** In practice, there is no comeback on the retailer. There should be, because they have a legal duty of care. However, in practice, it never comes to that. That is almost the biggest weakness in the whole enforcement programme. If some people in the chain feel that they are invulnerable, it becomes harder to implement good practice.
259. **The Chairperson:** Can retailers be prosecuted if they hand tyres to anyone willy-nilly?
260. **Mr Taylor:** Yes, they can be.
261. **Mr Hamilton:** I wonder if it would be worthwhile finding out whether there have been any prosecutions or investigations.
262. **Mr Dallat:** Thanks for your presentation, Peter. We have loads of reasons or excuses for burning tyres here. We have commemorations and celebrations of victories and defeats. Is there a similar problem in Britain? What is the attitude of local councils or whoever has responsibility for the environment to
- the tons of pollution that go up into the atmosphere?
263. **Mr Taylor:** As Winnie Mandela discovered once, they do burn rather well.
264. **Mr Dallat:** I do not think that that was a nice remark. I take it that you are talking about the necklace things?
265. **Mr Taylor:** Hmm.
266. **Mr Dallat:** I would have preferred that you had not said that.
267. **Mr Taylor:** Tyre fires fall into two categories. In the manufacturing process, car tyres, in particular, contain fabric, typically rayon or perhaps nylon. In some aspects of the size-reduction process, there is a fire risk. We do not have the types of fires, by and large, that you have here. We have arson, which is a common problem. I am not sure if that is the issue here. Obviously, the longer it takes to clear piles of waste tyres from sites, the more likely it is that there will be examples of arson and other issues relating to site security, and the rest. Again, the Environment Agency has been looking at new conditions for site storage, and the industry and my association are working with it to come up with acceptable stack heights, separation distances, and the rest. That, again, is about best practice.
268. Where an accumulation has happened illegally and the Environment Agency is in the process of prosecuting someone — that process can take a couple of years — there are issues of site security, which can, in turn, lead to opportunities for arson. As far as tyre fires are concerned in England and Wales, and perhaps in Scotland, too, in the outdoor situation, arson is really the only situation that we face. We rarely see tyres being used on bonfires and the like. Does that answer the question?
269. **The Chairperson:** John?
270. **Mr Dallat:** I am not remotely interested. The remark that was made at the beginning was unacceptable to me.
271. **Mr Taylor:** I withdraw it unequivocally. It was not meant to offend anyone.

272. **Mr Dallat:** Well, I found it highly offensive. That was one of the most dreadful things that ever happened anywhere in the world.
273. **The Chairperson:** Sorry, I missed the remark.
274. **Mr Weir:** It has been withdrawn, so there is no point in repeating it.
275. **The Chairperson:** OK, John, are you happy with that?
276. **Mr Molloy:** Chair, again, just to repeat; it is probably as irresponsible a statement as the way that tyres are processed along the lines of irresponsible management right through the whole system.
277. You made another statement about 40% of tyres going in cement kilns.
278. **Mr Taylor:** I said 40% of car tyres.
279. **Mr Molloy:** What control is there as regards monitoring that and the filters that are used in the cement kiln system?
280. **Mr Taylor:** My understanding — well, my knowledge — is that the controls in the UK are very stringent. The last time I saw some figures, it cost, typically, about £1 million a kiln to install the necessary filters and the alerts that sound off in the local Environment Agency headquarters if there are any excessive emissions. When that happens, the chimney is shut down. I believe that that is how it works.
281. **Mr Molloy:** We heard evidence last week that, although truck tyres are numbered and marked and are therefore traceable, car and van tyres are not traceable because there are no numbers on them. Surely if someone, whether at a tyre retailer's or at a filling station, is collecting money from people to dispose of tyres correctly, there must be some identification or tag on the tyre that means that it could be traced right through the system.
282. **Mr Taylor:** In a best practice scheme, you tend not to need that, but there have been experiments with what is known as SmartWater. A tyre is marked and that tyre then becomes traceable. However, at the moment, there is no straightforward way of knowing which retailer, for example, a used tyre has come from.
283. **The Chairperson:** Would it cost a lot to put a serial number on car tyres as is done with truck tyres?
284. **Mr Taylor:** Tyres have batch numbers, and in this country alone we sell about 50 million tyres a year. Using serial numbers would be difficult, but perhaps if we reach the point where we could use some sort of SmartWater marking —
285. **The Chairperson:** Would that identify the brand?
286. **Mr Taylor:** In a sense, I am not sure that we need to identify the brand. We just need to be sure that, when tyres are removed from wheels, they go into the recycling chain and do not pop up somewhere else before they can be reprocessed.
287. **The Chairperson:** Thanks very much indeed, Peter. Thank you for coming all this way to give us a presentation.
288. **Mr Taylor:** Thank you.

20 October 2011

Members present for all or part of the proceedings:

Ms Anna Lo (Chairperson)
 Mr Simon Hamilton (Deputy Chairperson)
 Ms Paula Bradley
 Mr Willie Clarke
 Mr John Dallat
 Mr Danny Kinahan
 Mr Patsy McGlone
 Mr Francie Molloy
 Lord Morrow

Witnesses:

Mr Robin Cherry	Ballymena Borough Council
Mr Greg Dornan	
Mrs Nicola McCall	
Mrs Sinead Sargent	Newline Waste Solutions
Mr Brendan Carragher	
Ms Diane Roberts	

289. **The Chairperson:** Today, we have with us Nicola McCall, deputy director of environmental services; Sinead Sargent, the senior environmental health officer; Greg Dornan, head of policy; and Alderman Robin Cherry, deputy mayor. You are all very welcome, and thank you very much for coming all the way from Ballymena to help us with the inquiry. I have seen the pictures that you sent us; they are quite lively and colourful. You may give a presentation of 10 or 15 minutes, after which members will ask questions.

290. **Mr Robin Cherry (Ballymena Borough Council):** Good morning. Ballymena Borough Council welcomes the inquiry that the Committee is undertaking into waste tyres, and we are very pleased to have been given the opportunity to be involved and to share the details of our experience of the tyre-marking system operated by Ballymena Borough Council since 2003. We also intend to make recommendations for bridging the current monitoring and enforcement gap regarding the illegal disposal of waste tyres.

291. I will introduce our team. I am Alderman Cherry, former chair of the council's

environment committee. Representing the body corporate, I will outline the rationale for introducing the scheme and how it links into our community planning ethos, which aims to improve the quality of life of all our citizens. Sinead Sargent, senior environmental health officer, is the person who manages and implements the project on the ground. After we have outlined the detail of the scheme, Nicola McCall, head of environmental health, will provide some recommendations on the way forward. Greg Dornan, head of policy, is responsible for the development and delivery of all council policy.

- 292. Although councils can implement practical initiatives, such as the marking scheme, it is our opinion that, to fully address the issue, a more strategic and overarching approach, including both monitoring and enforcement, is required. The council's role in the tyre-marking scheme, and its motivation in introducing and sustaining the programme, is to fulfil its civic leadership role and to ensure that the borough remains an attractive, clean and safe environment and a welcoming place for all.
- 293. It is not our legal duty, but our civic duty, to carry out that work. Civic leaders are committed to the community planning process and feel very strongly that joined-up public services are the only way to address citizens' needs. I and the other elected members of the borough council see our role as to oversee and influence all public services, not just the 5% that we manage. I will hand over to Sinead to introduce the scheme.
- 294. **Mrs Sinead Sargent (Ballymena Borough Council):** First, as Alderman Cherry said, we very much welcome the inquiry that the Committee is undertaking into waste tyres and are pleased to be given the opportunity to share the details of our experience.

295. The scheme was developed by the council and is implemented on the ground by our borough warden, who, prior to the bonfire season, marks tyres in depots and other retail premises. The scheme arose through work with the community and bonfire organisers to try to ensure that bonfires in our area were as environmentally friendly as possible. We believe that the scheme was possible only through the good relations among councils, elected members, officers and the community. We became aware that there was, and still is, an issue with tyres being placed on bonfires, often by persons unknown or unidentifiable. The council also acknowledged the larger-scale criminality related to the smaller-scale illegal disposal of waste tyres.
296. I will outline the legislative base for dealing with illegally deposited tyres. As the legislation stands, responsibility for the monitoring and enforcement of the proper disposal of used tyres sits firmly with the Northern Ireland Environment Agency (NIEA). At present, a council has no legislative remit pertaining to waste tyre disposal, illegally or otherwise, unless it happens on council property.
297. We believe that, if the powers set out in the existing legislation were maximised by the NIEA, the problems associated with the illegal disposal of tyres would be minimised. The council's experience shows that, in the past, the NIEA appeared not to have taken a proactive approach to the ongoing monitoring and enforcement of tyre disposal.
298. I will now describe the process in Ballymena. The council, having identified the ongoing monitoring and enforcement gap, decided to be proactive. Hence, in 2003, we began to visit local tyre depots and other relevant retailers to mark all waste tyres. Tyres at each outlet were marked with a different colour and/or motif to identify tyres belonging to those premises. The photographs in our written submission demonstrate that. The purpose of marking was to aid identification should tyres appear on a bonfire or any other illegal dump at a later stage. It is a simple scheme, but it had a positive effect on reducing breaches of the legislation.
299. Furthermore, the approach was very much welcomed by the companies involved, as they felt that it offered them some protection from intimidation or from being put under any undue influence to hand over tyres illegally. The owners and managers of the businesses continue to welcome the approach taken by council and have actively and voluntarily involved themselves in the tyre-marking scheme.
300. Although we would be the first to admit that the scheme is by no means perfect, it was introduced in an attempt to be proactive and address the existing monitoring and enforcement gap. Prior to the tyre-marking scheme, every bonfire in our borough had a significant number of tyres present — around 100 or more per bonfire. Since the scheme's inception, the amount of tyres on bonfires and illegal sites decreased to the point at which there were either none or only a minimal number. Critically, to date, no marked tyres from our local depots have appeared on any bonfires in the borough. However, in 2010, unfortunately, the bonfire season seemed to allow an increase in the amount of unmarked tyres appearing on local bonfires. Due to the success of the scheme, we can infer that those unmarked tyres came from outside our borough. The absence of any marked tyres supports the view that, to date, the local scheme in Ballymena has been successful.
301. In our view, proactive monitoring and enforcement are critical. That is the only, and the best, way fully to address the ongoing issue. We were pleased to note that, during the NIEA's oral evidence to the Committee, Mr Foster said that the agency was pursuing a number of cases involving the illegal waste disposal of tyres, and we very much welcome that approach. However, it is concerning that the council has not been aware of any such enforcement plans. That highlights the possible communication gap between local councils and the NIEA and, therefore, the need for a joined-up approach.

302. In 2006, Ballymena Borough Council adopted a joined-up approach with the NIEA and asked it to become involved in the scheme. During annual visits to the tyre depots, council officers were accompanied by an NIEA officer, and, while we marked the tyres, the NIEA officer monitored compliance of the tyre businesses in our borough under its duty of care legislative requirements.
303. Both agencies were highly visible on the ground, as a result of which the NIEA secured a successful prosecution against one premises for the non-production of appropriate documentation, and a further two premises received warning letters. Unfortunately, that joint approach has not been repeated. It was merely a one-off event, mainly because of resource implications in the NIEA. Those joint visits communicated a strong message to all concerned; they made a positive difference and delivered results. The NIEA stated in its written submission that it intends:
- "to carry out an awareness raising exercise for retailers and distributors underpinned by a key stakeholder seminar to highlight and emphasise their responsibilities under Duty of Care".*
- The council would very much welcome a joined-up approach similar to the 2006 joint operation.
304. There is, undoubtedly, a need for more joined-up working between the council and the NIEA to address the tyre issue and the wider issues of illegal waste disposal. The Committee will be aware of the fly-tipping protocol, which sets out the quantitative thresholds that determine the respective responsibilities of councils and the NIEA. In the proposed protocol, the thresholds are set at 20 cubic metres for non-hazardous waste and two cubic metres for hazardous waste. Any illegal deposit at or below those thresholds would be dealt with by councils. The Department of the Environment (DOE) proposed those thresholds despite the majority of respondents to the consultation document opting for levels similar to those in Scotland: six cubic metres for non-hazardous waste and no hazardous waste responsibility for councils. Some councils, including Ballymena, have formally rejected the proposed protocol, as it has the potential to impose a large burden on councils and, ultimately, the ratepayer.
305. The council calculated the projected cost of disposing of 20 cubic metres of non-hazardous waste to be approximately £2,280. Potentially, that would be for each complaint. In addition, under the NILAS (Northern Ireland Landfill Allowance Scheme) target, the council would be liable for possible penalties, which are set at £150 a ton over the council's allowance. A contract for treatment and disposal centrally operated by the NIEA seems to be the most appropriate way to deal with the hazardous waste element. Similar concerns about the fly-tipping protocol have also been expressed by other councils, the three main waste management groups in the Province and NILGA (Northern Ireland Local Government Association). I will now pass over to Nicola, who will outline our conclusion and recommendations.
306. **Mrs Nicola McCall (Ballymena Borough Council):** Ballymena Borough Council feels that a proper joined-up approach and agreed protocol are required to tackle the problem effectively. There must also be a good working relationship between the councils and the NIEA, with clear and informative communication in both directions. As long as the current gap in monitoring and enforcement continues, so will the associated criminal activity. Under those circumstances, a positive initiative led by any one council will only ever provide a partial solution. There must be a more joined-up, strategic and overarching approach, which, in the long run, is probably the best option for the citizen, the environment and the public purse.
307. Ballymena Borough Council is very willing to work with the NIEA and any other appropriate body to improve our tyre-marking scheme and to advise anybody who wants to take forward something similar. That said, we

- recognise that it is not, and can never be, a solution on its own. I assure the Committee that Ballymena Borough Council is very willing and prepared to assist in any joined-up approach that can be developed for monitoring and enforcement. We view that as a crucial tool in trying to tackle the illegal disposal of waste tyres, and, if required, we would be happy to pilot such an initiative.
308. We would like to put forward a few recommendations. We have covered most of them, but I will summarise. We strongly feel that a more strategic, overarching, joined-up approach to monitoring and enforcement must be implemented to tackle the problem. We must be proactive on the ground. The council strongly recommends a joined-up approach similar to that adopted in 2006. That worked well, because it gave us a localised duty of care for enforcement. Such an approach could easily be rolled out to other local authorities to minimise the opportunity for any criminality associated with the disposal of tyres.
309. We recommend improved communication between local authorities and the NIEA. We would welcome being involved in the awareness-raising event that Mr Foster highlighted. We feel that local authorities could bring another perspective to that event and help to assist with awareness-raising. We strongly recommend that the proposed fly-tipping protocol be amended to reflect realistically the role of council and local government. Finally, we recommend that a pilot be run between local authorities and the NIEA, whereby proactive monitoring and enforcement would run alongside an initiative such as ours, the impact of which could be evaluated on the ground. Thank you for your time.
310. **The Chairperson:** Greg, were you going to say something?
311. **Mr Greg Dornan (Ballymena Borough Council):** No; you have heard the entire submission from Ballymena Borough Council.
312. **The Chairperson:** Thank you very much for your presentation. You certainly gave a thorough description of your scheme. I agree that there must be a strategic, joined-up approach with local government, because it deals, day and daily, with a lot of those issues on the ground.
313. Sinead, you pointed out that, although the tyres in your borough are marked, with the result that you do not find any marked tyres on local bonfires, you have found unmarked tyres from other council areas. That is a clear indication that it is not enough to have just one council marking tyres; all councils must do that. So we need a protocol to require other councils to do that, too. I am interested in hearing more about your scheme. How many wardens go out to mark tyres? How much does that type of work cost?
314. **Mrs Sargent:** Our one warden has been key in the scheme's implementation. Over the years, our borough warden has established a good working relationship with the depots. Usually, he goes to premises and begins to mark the tyres around the end of April or the beginning of May. He needs to visit some depots weekly to make sure that the marking of additional waste tyres is continuing, and he visits other depots a little less often. However, right up until bonfire season, the visits are weekly. He visits a total of 13 premises in the borough. That gives you an indication of the time involved.
315. **The Chairperson:** So the work is concentrated on the period before July, during which tyres are dumped on bonfires?
316. **Mrs McCall:** Yes. It is important to start the scheme early enough in the year, prior to tyres being sourced.
317. **Mr Hamilton:** Obviously, there is a problem, but, as Alderman Cherry identified, no council has a responsibility to address it; that is the duty of someone else. However, as is so often the case, if local government did not step in, nothing would be done. So I commend you for what you are trying to do.
318. I want to pick up on the tyre-marking scheme. With what are the tyres

- marked? There is anecdotal evidence that, because of initiatives in various council areas, including the sort of thing that you do, the number of tyres found at bonfires over the past number of years has dipped. It is, therefore, worrying that you found that the number of tyres increased last year. Is there any risk that the markings could be removed? A tyre that had been marked could then appear as an unmarked tyre.
319. **Mrs Sargent:** You can see from the photograph that we provided that the markings on the tyres are substantial, and it would, therefore, take a substantial effort to remove them. Moreover, the feedback from the tyre depots is that they are no longer approached by people seeking tyres. The marking is a deterrent more than anything. Depots are not being approached, which is why they take comfort in the scheme and warmly welcome it.
320. **Mr Hamilton:** Have you any evidence of neighbouring councils reporting that Ballymena tyres have appeared in their areas?
321. **Mrs Sargent:** None.
322. **Mr Hamilton:** Very good. You say that the scheme begins in April or May. It would take a big commitment by the council to operate the scheme all year round. However, if we wanted to act on a broader scale, we would have to consider that. Have you looked at rolling out the scheme? You have good evidence to support your contention that the scheme is successful. However, a January tyre could easily be dumped in July and kept somewhere. We have lots of evidence that tyres are stored in various places. Are you considering rolling out the scheme throughout the year?
323. **Mrs Sargent:** We will welcome the Committee's recommendations, whether for a pilot scheme, or whatever. We are extremely open to suggestions. We would be the first to admit that the scheme is by no means perfect, but it is a good start in trying to be proactive in tackling the issue.
324. **Mr Hamilton:** Given that you have no remit, power or authority to operate the scheme, it is a commendable effort. I am sure that, as you rightly said, it is not fail-safe. However, it is a good attempt, and it is worth looking at your scheme in greater detail. Thank you very much.
325. **Mr W Clarke:** Thank you very much for your presentation. It is good to have a political representative here as well; Francie will be delighted by that. He gave off during last week's evidence session.
326. I pay tribute to the council for its initiative. It is very positive for a council to take on such an initiative, work in partnership with others and take the lead. It is refreshing to see.
327. Where are the majority of bonfires sited? Are they on Housing Executive, Roads Service or council property?
328. **Mr Dornan:** The majority of bonfires are located on Housing Executive property, but we have a multi-agency approach to dealing with them. In February, all the agencies get round the table to decide on the best way forward. Usually, the first person whom a citizen will phone is his or her councillor. People seem to think that local government is responsible for bonfires.
329. **Mr W Clarke:** How effective is the NIEA in dealing with this issue? Be honest.
330. **Mrs McCall:** There is definitely a monitoring and enforcement gap. When the NIEA came out and worked with us that one time, it seemed to work well, but that was not repeated. When we refer issues to the NIEA, we get no feedback on what is happening. If we go back and ask for feedback, the NIEA staff say that they cannot tell us. It is a difficult working relationship.
331. **Mr W Clarke:** That sounds familiar.
332. **Mrs McCall:** I do not like criticising any other agency.
333. **Mr W Clarke:** I understand that.
334. **Mr McGlone:** We have to hear the truth.
335. **Mr W Clarke:** That is why the inquiry has been set up. We see gaps, too,

- and we are elected representatives. I asked about the Housing Executive, Roads Service and councils, because I would like the inquiry to recommend that the landowner be fined by the NIEA. If waste, tyres or anything else is dumped on Housing Executive property, the landowner responsible should be approached by the NIEA. That would make the various agencies focus on ensuring that that does not happen. They would have to take robust preventative measures to ensure that waste was not dumped on their land or, if it was, removed. You will never resolve the problem by bringing it down to the level of the individuals who leave the waste, because they cannot be identified. You need to place an onus on landowners to be more robust in their approach. That is why I asked the question about who owns the land.
336. You mentioned that some companies feel intimidated or under a certain amount of threat. Have you evidence, whether from organisations or individuals, of companies being intimidated? Has there been a PSNI response to that?
337. **Mrs Sargent:** The evidence is purely anecdotal. When our borough warden was marking tyres, companies expressed their pleasure at seeing him, because they know that that, in itself, will act as a deterrent to anyone who might wish to request tyres.
338. **Mr W Clarke:** So the marking of tyres provides good comfort.
339. **Mrs Sargent:** Yes.
340. **Mr W Clarke:** Have you any cases of tyres being illegally stored in the Ballymena borough?
341. **Mrs Sargent:** Not that we are aware of.
342. **Mr W Clarke:** Would building a traceability mechanism into tyres be beneficial, whether that was a microchip or some sort of barcode?
343. **Mrs Sargent:** Anything that could assist would be beneficial.
344. **Mr McGlone:** Thank you for your presentation. You seem to be carrying out valuable work in Ballymena. What is the cost to the ratepayer, through the public purse, of the warden engaged in marking tyres? That was touched on earlier, but I did not hear any detail. Much of the warden's work seems to kick in around April. Is the warden engaged in other duties elsewhere for the rest of the year? I want to get a handle on that. It is good that you have taken the initiative, but it is an initiative that should probably have been taken by the NIEA.
345. **Mrs McCall:** The scheme makes up only part of the work of the gentleman concerned. He is fully employed by the council carrying out other duties, and the marking of tyres is over and above those. We do not have specific costs for marking tyres, but we could try to identify those. At a certain time of year, he does a lot of work relating to bonfires, but, during the rest of the year, he works on various other issues, such as fly-posting, graffiti and dogs. He is not employed specifically to deal with tyres.
346. **The Chairperson:** For the few months from April onwards, does he work full-time marking tyres?
347. **Mrs McCall:** Even then, it is not full-time. We are fortunate that the individual is so dedicated. He fits in that work around everything else, and the fact that everyone at the tyre depots is so co-operative makes life easier. It is down to the individual and the relationships that we have with the depots.
348. **The Chairperson:** Sorry for jumping in, Patsy.
349. **Mr McGlone:** That is OK, Chair. I just want to get how that works clear in my head. Does the warden mark the tyres, or does the company do that?
350. **Mrs Sargent:** He marks the tyres.
351. **Mr McGlone:** That is an awful lot of tyres to mark, mind you. I am thinking about the time involved. He could not get many of those big lorry or tractor tyres done in an hour.

352. **Mrs Sargent:** Although he physically marks the tyres, staff at the depot assist him by lifting out tyres, setting them aside, and so on. He spends more time on the first visit to a depot, but, as the monitoring visits continue, fewer tyres require marking each week.
353. **Mr McGlone:** I want to get a wee handle on that. Why is that the case? We have heard that tyres are constantly leaving depots. If your guy is marking them and tyres are still being removed from vehicles, the number requiring marking should not reduce much. The number should be static on each occasion.
354. **Mrs Sargent:** A certain number of waste tyres are stored in depots.
355. **Mrs McCall:** They bulk them prior to collection, and you mark that bulk when you first go. You then have to do only what is done each week before they are taken away. The bulk is done on the first visit, and then it tails off a little.
356. **Mr McGlone:** OK, thank you.
357. **The Chairperson:** We went to two recycling plants recently and looked at the different end products that came from used tyres. They were turned into bales for landfill or roads or into crumbs for playgrounds and so forth. The tyre markings that are used are quite bright and bold. Do you have any evidence that could jeopardise the possibility of their being used for different products?
358. **Mrs Sargent:** No. We have a tyre recycling business in our borough, and I know that our borough warden has a good relationship with that premises. To date, they have never expressed any concerns about the marking of tyres or whether that would have any detrimental effect on recycling.
359. **Mr Kinahan:** I am, as ever, impressed by Ballymena Borough Council, which leads on many things, including gritting and other matters. I am very impressed with your pilot project. Has there been any chance of putting it through NILGA? Perhaps that is the route we should be looking at, given that councils are all quite independent from us up here. If all councils, through NILGA, were to get together and adopt your pilot project, and if, dare I say it, a few tweaks were needed, that may be a way to deal with tyres.
360. As a landowner, I take Willie's point. However, I am very aware, and it needs to be said, that the Housing Executive, certainly in Antrim and, I think, in Ballymena, is the leader in how we deal with bonfires. We will have to tiptoe through that. Finally, who do you think is best placed to enforce the scheme? Is it the NIEA, or should we be looking in different directions, either to us here or to a combination of us, you and the police? Thank you for a great presentation.
361. **Mrs McCall:** We have not specifically taken this matter to NILGA, but we have given presentations on the scheme at best practice events that other councils attended. I do not know whether any other council has picked up the scheme. I am not aware of that, but we have not taken it specifically to NILGA.
362. There is not much that we can say about the landowner issue, but perhaps Alderman Cherry would say that there are occasions when, with the best will in the world, landowners — farmers in particular — can suddenly find stuff dumped on their land that they have not put there. Perhaps that also needs to be borne in mind. As to who is best placed to enforce the scheme, I do not think that any one agency can do it on their own. The problem has to be tackled through a collaborative effort.
363. **Mr Kinahan:** Thanks very much.
364. **Mr Dallat:** Thanks for the presentation. It was very enlightening. Since we were reminded this week that this is a legislative Assembly, what legislation would you like to see put in place that would make your job a lot easier?
365. **Mrs Sargent:** As Nicola said, and as we outlined in the paper, a good starting point would be for the existing legislation to be maximised and utilised along with a proactive approach in a scheme that is similar to ours. The NIEA worked on a joint operation with

- us in 2006, and the fact that both organisations were visible on the ground sent out a very clear message to all our tyre depots. The fact that NIEA took one prosecution and issued warnings to two other businesses demonstrates that the existing legislation can be used.
366. **Mr Dallat:** Basically, are you saying that the existing legislation, perhaps with the addition of microchipping tyres or something like that, would make it easier? That is fine; thanks.
367. **Mr Molloy:** Thanks, deputy mayor and staff. It is a welcome sight to see elected members here today. Ballymena's initiative is good, and it should be commended. I have just noticed the photographs in your submission, which have been taken outside the yard. Is that right? Have the tyres that we see in the photographs been collected already?
368. **Mrs Sargent:** They were at the depots when we went there.
369. **Mr Molloy:** If we are thinking about how councils can afford to pay for the scheme, have you found any benefit in being able to claim for paying for the work out of landfill tax? Is that one means of doing that, or is there another mechanism that would mean that the tyre depots, after a period, would take on this particular job themselves and mark the tyres? The fact that they are clearly marked means that they can be seen if they are on a bonfire or anywhere else. That is a good initiative. A chip would be grand, but you cannot see it, and it is not public. There is the issue of respectability for the businesses involved; they do not want to see their name on bonfires. If the like of landfill tax could be used in this way, that would put resources back into the industry.
370. **Mrs McCall:** It is an interesting idea. We have not really previously considered how it is paid for, because we do it on such a small scale that we have not really thought any further than that.
371. **Mr Dornan:** It is something that we will certainly consider looking into.
372. **Mr Molloy:** Perhaps the depots could do it themselves.
373. **Mrs Sargent:** Some depots have expressed a wish to assist. We would also still need to have a strong monitoring role, but that is being considered.
374. **Ms P Bradley:** Thank you for your presentation. I was not in for a lot of it, but I was watching it from outside. Congratulations, again. I know that councils are having to become more creative and that they end up having to do more and more jobs that are above and beyond what they probably should be doing, so well done.
375. I know that councils are looking at budgets at this time of the year. They are looking at striking the rate, and we need to remember that, ultimately, councils are the custodians of the public purse through the money that they spend. How sustainable is it for you, as a council, to continue to do this work? It will probably increase as time goes on unless some sort of legislation is passed down as to what we should be doing with our used tyre disposal. How sustainable is this for Ballymena Borough Council?
376. **Mr Dornan:** At the minute, it is sustainable, but we do not have the resources to cover it if its use increases. Not being an environmental health expert myself, I think that the NIEA needs to step up to the plate on this issue and help to monitor the situation. It has claimed resource issues and that it has no staff to deal with this, but it is its legislative duty to do it. It has to step up to the plate.
377. **The Chairperson:** Thank you very much. That is useful information for us to consider in our inquiry. Thank you for coming, and I especially thank you, deputy mayor.
378. Members, I have been told that a mobile phone is still switched on and causing interference. Can everybody check that their phones are switched off, please? Mobile phones interfere with our recording.

379. We are joined by Diane Roberts and Brendan Carragher. Thank you very much for coming to help us with the inquiry. You can give us a presentation lasting around 10 minutes, after which members can ask questions.
380. **Mr Brendan Carragher (Newline Waste Solutions):** I am Brendan Carragher, chief executive officer of Newline Waste Solutions. I am accompanied by Diane Roberts, chief executive officer of our partners. We would like to thank the Chairperson for giving us the opportunity to talk to the Committee.
381. As we know, waste tyres are a huge problem. That problem will not go away unless there is investment of finances and resources. The UK alone produces 450,000 tons of waste tyres. A recent BBC report stated that Northern Ireland produces 1.7 million waste tyres. I believe that figure to be heavily underestimated; I think that, in reflection of the current economic crisis, it is almost twice that amount. From being in the tyre trade, I know that more people are buying part-worn tyres than ever before. In our business, that accounts for almost 90% of trade.
382. Part-worn tyres usually have 50% tread remaining on them. They cost around £20, which is a fraction of the cost of a new tyre. The increasing demand for part-worn tyres contributes considerably to the problem of waste tyres. If the average customer changes their tyres every 12 months, they will now do so every six months. That basically doubles the number of waste tyres that are produced in Northern Ireland. Waste tyres come in from Germany, Switzerland, Sweden and from other countries across Europe. Basically, those countries are reducing their waste while ours increases.
383. I have worked in the tyre trade since I was 13 years old. When I was 16 years old, I set up a limited company called Carragher Tyre Sales. We now retail and trade throughout the UK and Ireland. Therefore, I have insight of and information on the problem of waste tyres throughout the entire industry.
384. As the Committee is well aware, tyre collection is a shady business. Basically, a customer goes into a tyre retail depot to purchase tyres. The retailer charges the customer £1.50 to £2 for disposal of their waste tyres. Then the waste tyres collector comes along. He usually charges the tyre depot between 50p and £1 a tyre to dispose of the waste. At those prices, there is no way that those tyres will ever end up in a proper recycling facility. It is more likely that they will be fly-tipped, stockpiled, buried or burned.
385. Authorised recycling facilities companies such as mine charge £70 to £150 a ton to dispose of waste tyres. However, the problem is that the products that they create are not high value. They create crumb rubber that is used for such things as playgrounds, horse bedding, arenas and garden centres. There is no demand for those products; nobody wants them. Therefore, recycling facilities are stockpiling tyres. I know of a recycling facility that has a stockpile of over 400,000 tyres. It cannot accept our waste. Every time that we ring to ask whether it can take our tyres, we are told to leave it until the following week. In that situation, tyre retailers are stockpiling. It is not as though we want to stockpile; we have no other choice. Those tyres create a hazard and take up space in our businesses. At the moment, stockpiles are being set alight, and I think that there was such an incident in Derry last year. That fire caused considerable damage and expense to the taxpayer and the human environment.
386. Our solution to the problem is pyrolysis. Pyrolysis technology breaks the tyre down into three high-value products: oil, steel and carbon black. It also creates synergy gas. We reuse the synergy gas to run our system. There is no waste after that process is complete. On a recent trip to Taiwan, I saw a system that recycles around 30 tons of waste tyres a day. It produces 14 tons of oil, 10 tons of carbon black, 4.5 tons of steel and 1.5 tons of gas. The pyro oil that it produces is a grade 2 oil that is

similar to kerosene and red diesel, which can be used in industrial heating. It can also be used to run boats. So, there is a list of applications for the pyro oil.

387. The carbon black produced in this system is called diesel carbon black. It has been tested by Goodyear and Michelin, and it can be reused in the manufacture of new tyres. There is a demand for carbon black of nine million tons a year. The carbon black produced in the system has an International Organization for Standardization (ISO) certification; therefore, it meets the highest specification. Producing virgin carbon black takes 10 times more carbon energy than air-eco carbon black. Therefore, when it leaves our system it is liable for carbon credits. The steel produced will be sold to metal recyclers, and we have customers in place for all the by-products.
388. The pyrolysis system that we plan to introduce to Northern Ireland meets all EU requirements. Cyprus's system, which has EU backing, recycles 8,000 tons a year. The system that we propose will recycle 11,000 tons, and it will make Northern Ireland one of the largest tyre recyclers in Europe.
389. My team has a wealth of knowledge of the waste tyre industry. Diane Roberts specialises in mark-up strategies and start-up businesses, and Oonagh Toner has 20 years' experience in the waste industry, which was gained from working with Veolia Waste, the world's leading company.
390. We have fully researched and clearly outlined a business plan to bring to the investment community. Our project would involve a big investment in plant, machinery and jobs. We know that we can solve the waste tyre problem. The facility would make it more economical for tyre retailers to recycle their waste with us, as we will charge only 50p a tyre. It would not be viable for them to do anything else with their waste.
391. Having government support on the supply of waste tyres will make the

business economical. It will also allow the business to be more regulated. Our facility will be able to issue certificates to tyre retailers when they dispose of their waste with us. At the start, the business will create 30 new jobs at a time when jobs are needed. We estimate that we can export 3·8 million high-value products in the first year alone. The opportunity is here for us as a business, and for the Committee and the Government, to put Northern Ireland on the map as the leading recycler of tyres in Europe. Thank you.

392. **Ms Diane Roberts (Newline Waste Solutions):** One of the things that attracted us to the project is that it is an innovative idea, it is in the green sector and it has the potential to grow and to produce exports. It is an opportunity for us to go out and seek private sector investment to solve a public problem in a fairly lucrative way. We want to give Northern Ireland an opportunity to support the private sector and to develop jobs and exports, as well as to solve the problem for the public sector.
393. **The Chairperson:** The industry certainly needs encouragement and backup if the issue of illegal dumping and the trend for fly-tipping are to be addressed. Thank you very much. It is an innovative concept and project.
394. **Mr Molloy:** Thank you for your presentation. It certainly seems to be a new idea. What are the side effects of pyrolysis, and how is pollution controlled in the system? What do you need from the Assembly to ensure that people have to dispose of their tyres through such a system?
395. **Mr Carragher:** The system will not affect current tyre recyclers in Northern Ireland. The products that they create, such as crumb rubber, do not make a profit. Their profit is made from collecting the tyres. Their crumb will go to our facility, and we will recycle it. There will be no pollution when all the processes in the system are complete. There will be a few emissions, but they will be below those specified in EU regulations.

396. **Mr W Clarke:** I welcome the proposal. With regard to government finance, is Invest NI in discussion with you about developing the project?
397. **Mr Carragher:** I am with Invest NI on a Propel programme. One hundred businesses applied at the start of the process, and our business was among the final 15 that were picked. Therefore, Invest NI is working with us on the project.
398. **Ms Roberts:** We have had help from the technical team from Invest NI, which comprises people who understand very well the technology that is involved. This technology has come a long way in the past five years. The first pyrolysis machines had a number of drawbacks, some of which were on the environmental side. We have been working with Invest NI's technical department, which helped to source the information we needed when we went out to Taiwan, for example. This is a project that, if it gets legs, Invest NI would be very happy to support.
399. **Mr W Clarke:** Have you viewed the pyrolysis system in operation in Asia?
400. **Mr Carragher:** I have, yes.
401. **Mr Kinahan:** Thank you for your presentation. This may sound a little thick, but what exactly happens in pyrolysis? Is it a form of burning?
402. **Mr Carragher:** It is not a form of burning. Tyres are put into a reactor, which heats to 400 degrees. That breaks the tyre down into the four by-products, and it is oxygen free, so it does not cause burning.
403. **Mr Kinahan:** Thank you and good luck.
404. **Mr Molloy:** It has been proposed that the system be used for other waste products. Do you have any ideas about how to do that? We were discussing MBT plants that have been built throughout the North. Would your system also be able to deal with other waste, such as household waste?
405. **Mr Carragher:** You can add on another part of the system that will recycle plastic using the same method. There is an awful lot of oil in plastic. It is the same as a tyre: nearly 50% of car tyre is oil. The system can be used to recycle the likes of plastic bags.
406. **The Chairperson:** You mentioned turning the tyres into crumbs, which has a limited use and market. Where do you intend your end products to go?
407. **Mr Carragher:** We have customers for all our end products. The company that visited and that makes this system is willing to buy our carbon black, but they would be looking to buy it at a discounted price. There is demand for nine million tons of carbon black a year, and a lot of tyre companies now want to buy eco carbon black, because it is seen as helping the environment and is good advertising for their own businesses. The oil could be sold to the likes of electricity production plants to run their systems. It can also be refined and used as a diesel fuel. The steel, which is high-grade steel, will be sold on to metal recyclers.
408. **Ms Roberts:** One of the things that we have been taking into account is that the material is all reusable and is seen as green. There is obviously a trade in carbon credits, so there is a benefit from that as well. That makes the project infinitely more sustainable.
409. **The Chairperson:** Thanks very much for your input into the inquiry, and best of luck.

1 December 2011

Members present for all or part of the proceedings:

Ms Anna Lo (Chairperson)
 Mr Simon Hamilton (Deputy Chairperson)
 Mr Cathal Boylan
 Ms Paula Bradley
 Mr Willie Clarke
 Mr John Dallat
 Mr Patsy McGlone
 Lord Morrow
 Mr Peter Weir

Witnesses:

Mr Ricky Burnett	Arc 21
Mr Norman Kerr	Kerr's Tyres
Mr Graham Byrne	Southern Waste
Mr Pearse McAleer	Management
Mr Jason Patterson	Partnership

410. **The Chairperson:** You are very welcome, Ricky. Thank you very much for coming all the way to Hillsborough. Did you enjoy your drive down here?
411. **Mr Ricky Burnett (Arc21):** Fortunately, it is a lovely day.
412. **The Chairperson:** We have your briefing. If you give us a 10-minute presentation, I will let members come in for questions.
413. **Mr Burnett:** Thank you, Madam Chair and members. I am policy and operations director with Arc21. As members will be aware, Arc21 is one of three waste management groups that were set up by councils in Northern Ireland. My group covers 11 council areas located along the eastern seaboard, with Ballymena Borough Council being the most northerly and Down District Council the most southerly.
414. In responding to the invitation to give evidence to this inquiry, we were fairly conscious that individual councils had also been approached and that they would have their own views and offer their own statistical information to the Committee, and we felt that it was appropriate to let those councils

have their say. We, therefore, decided collectively to focus in a wee bit more detail on the strategic perspective, and that is what we have tried to do in our concise response to the Committee. We tried to look at it from two basic angles: the current framework, particularly the enforcement aspects; and, secondly, whether that framework is the best framework available to ensure that tyres are properly managed or whether there is another framework that could improve on that situation.

415. I will deal with the enforcement side of things first. I think that the evidence that has come forward to the Committee so far suggests that enforcement could be improved. As members will be aware, the enforcement function primarily lies with the Northern Ireland Environment Agency (NIEA). We feel that the agency could make enforcement a greater priority within the current framework. What this highlights is the fact that improvements could be made not just in the management of waste tyres but in the management of waste in general and illegal operations. For me, it highlights the fact that there is an opportunity here to ensure that there is greater liaison between councils. We believe that NIEA and councils have a role to play.
416. Members will be aware that a protocol was developed, certainly in respect of fly-tipping, whereby we tried to bring that liaison to a head. Talks are still going on. In fact, I was at a meeting in the past month with senior officials from NIEA and officials from the Northern Ireland Local Government Association (NILGA). I think that we are beginning to see a bit of light at the end of the tunnel after the difficulty in coming to an agreement about the lines of demarcation. Senior officials from NIEA are certainly talking in more constructive terms about trying to arrive at a position where both organisations, which have

- separate strengths, merge those strengths and take advantage of them. At the moment, that is not happening, because they are working separately. There are no real mechanics for liaison between those groups, and I think that that is a fundamental flaw.
417. For my sins, I have previously worked with Glasgow City Council and the Scottish Environment Protection Agency, where I dealt with incidents of fly-tipping. In fact, I was personally involved in an investigation into a fire at a used tyre outlet, so I have a wee bit of experience with this. One of the things that is different in Scotland compared to Northern Ireland is that there is greater liaison between councils and the environment agency. I saw that from both sides there, and that is what is lacking in Northern Ireland. There is certainly a lot of scope there for that at a regional and local level. I think that we have to acknowledge that that there are local circumstances that must be taken into account. It is about putting the framework in place that allows that to happen.
418. There was an organisation known as the pollution co-ordinating committee where the environmental regulators and councils talked, at a regional level, about the big strategic picture. That then flowed down to similar meetings at a local level between council representatives and local representatives from the environment agency. That is a model that could be worth looking at, and tyres certainly come into that phrase.
419. The current legal framework in respect of the duty of care is really the main plank of enforcement. As members will be aware, it is a self-regulating regime. The stark reality is that it is not too difficult to circumvent that if you have parties that want to do so. It is about recognising where that is, or could be, the case and then structuring your activities to address that. It is not really too difficult. However, it will require local knowledge, which councils have, and the bigger picture, which the NIEA has, as well. It is a matter of those organisations getting together and sorting that out. There is a lot of scope for improvements to be made in the current framework.
420. Are there other ways of improving the framework? In our response, we very much favour work on a more producer-responsibility type of approach to dealing with waste tyres. Waste tyres are one of those materials that lend themselves to that type of model. Producer responsibility could cover a wide range of things. The devil is in the detail, and it would be important to look at the detail. It would bring the strength of linking the manufacturing and production element of the product with the retail element. What happens at the end use of that product — the treatment and disposal? It would bring a much clearer linkage between those. That strength in the framework could improve the management of waste tyres.
421. The private sector has the capacity to deal with that. I do not think that there is anything to suggest that it has not. However, it is a matter of applying a framework that will encourage and improve that management in a cost-effective way, which is quite important, particularly for tyres. It is a niche material, as members will appreciate. The danger with niche materials is that organisations may be able to set up a monopoly, which, at the start, is fairly cost-productive but, as time goes on, unless that monopoly is challenged, prices will escalate to an unacceptable level.
422. In some respects, the evidence suggests that the disposal of tyres has improved over the decade. I do not think that anyone has come before the Committee to suggest that that is not the case. From a strategic perspective, the current waste management strategies call towards resource management. Bizarrely, it is clear that that is happening. Increasingly, waste is being viewed as a resource, and rightly so. It is a material that has a value and a worth. However, the downside is that when you have a material that has a value and a worth, criminal elements will go in there and take advantage of the financial rewards

- that can result from circumventing the correct procedures and processes. It is about targeting those kinds of people as well. From a strategic perspective, that is possible.
423. In summary, first of all, we think that there is scope within the existing framework for the enforcement activities to be smarter and for there to be closer liaison between councils and the NIEA. Secondly, changing the existing framework to producer responsibility is something that should be looked at in great detail. Strengthening the links between the three aspects would bring a strength that would enable the management of waste tyres to improve. I know that is very short, but I hope that it is concise enough. I am open to any questions that members may have.
424. **The Chairperson:** Thank you very much, Ricky. People working together — the councils and the NIEA — does make sense. Councils have more local staff on the ground to keep a watchful eye on the illegal dumping of tyres.
425. **Mr Burnett:** I absolutely agree. Each organisation has its strengths, and it is important that they are brought together to take advantage of those strengths. That is what is missing. It is just not there at the moment. I know that NIEA is castigated and, in some cases, rightly so. However, I detect a change; it does want to work more with councils. I hope that that is not rhetoric, and I hope that it actually sees that through on the ground. I was encouraged by the meeting that was held with senior officials of NIEA. The protocol that was developed for fly-tipping is as applicable to tyres as it is to anything, and NIEA said that it was willing to look at some aspects of improving it. I do not like the word “concessions”, but NIEA might take on more responsibility, even within the lines of demarcation. I take heart from that, because I believe that there is a true willingness to try to work together. Unless that is brought about, it will be difficult to improve the situation.
426. **The Chairperson:** NIEA just never seems to have enough enforcement officers on the ground.
427. **Mr Burnett:** I accept that there is a resource element, but every organisation that sits in front of the Committee, including councils, can make that argument. Sometimes it is too easy an argument to hide behind. This is about working smarter within your constraints and about the strengths of both organisations. That makes rational sense, to my mind. Both organisations can then benefit. By working together and sharing intelligence you can only improve.
428. **The Chairperson:** You mentioned producer responsibility. We have heard people talk about branding, registering and having serial numbers on tyres. What is your view on that?
429. **Mr Burnett:** There are different ways of doing it. You can mark them, microchip them or whatever. I will be honest and say that I do not have sufficient depth of knowledge to be able to say that this would be better than that. You have to look at the particular material and design the producer responsibility around that. We have seen producer responsibility applied to batteries, end-of-life vehicles and waste electronics. Each is slightly different and has different characteristics. What we have to do is look at those characteristics. You will not be able to design a system that is flawless. I remember reading about systems on a beach one day, while on holiday. The final line stuck in my mind: “Show me a system, and I will show you an Irishman who will beat it.”
430. You can apply “Scotsman”, “Englishman” or whatever to that, but it is absolutely true: you will never get a system that is flawless. However, the important thing is to get a better system and improve it for the general good. Producer responsibility will do that. I believe that there are 13 countries in Europe that have producer responsibility, in its various guises, applied to tyres. I believe that Italy was going to introduce it this year, but now it has other problems to focus on.

431. **The Chairperson:** Called money?
432. **Mr Burnett:** Yes. France, Spain, Portugal, northern European countries and Scandinavia have all introduced producer responsibility. Denmark may be an exception: I think it has a tax levy system and a greater role for intervention, so it is slightly out of step with that trend in northern Europe. There are different models in different countries, and we need to look at those models and take the best elements which would apply to our own local situation. Our local situation might differ slightly.
433. I know that that is not a concise or black-and-white answer to the question; a bit of research needs to be done. However, I firmly believe that a system could be designed that would be appropriate to us. We would need to consider the application of that system within this devolved Administration and the impact that it might have, not just on the other devolved Administrations, but on the Republic of Ireland. We are the only part of the UK which has a land border, as you know, and sometimes the other devolved Administrations do not appreciate the impact that that can have. All those things must be taken into consideration. However, I absolutely and firmly believe that a system could be designed that would be appropriate for us.
434. **Mr Boylan:** Thank you very much for your presentation. Just to follow on from it, obviously, we have talked about microchipping and everything else but, realistically, what is the practical way forward? You mentioned the need for better linkage. Maybe I caught you wrong, but did you say that in Scotland there is better linkage?
435. **Mr Burnett:** In terms of enforcement and the organisations involved, in particular councils and the environmental regulator, the linkage I was referring to was the life cycle of the material in tyres. There are the people who manufacture and produce it, those who retail and sell it and, once it has been used, there are those who dispose of it. It is about linking that.
436. By implication, producer responsibility puts the onus on producers. At the moment, in our free-market system, manufacturers do not really worry too much about what happens to it afterwards. Retailers do not worry too much. It is almost as though they are in separate silos. We are pushing that responsibility onto them more. They, through their own pressures and obligations that they have to make, will bring strengths to the table that will make the system better. They will actually help the enforcers and regulators to address those who are hell-bent on making money through what is nothing more than criminal and illegal activity. There is no real, great motivation for retailers and manufacturers to actually deal with that. They will say that there is, but the reality is that when it comes down to it, there is not really.
437. **Mr Boylan:** I agree with what you say. I have some reservations. Obviously, there needs to be some form of enforcement. However, that comes at the end of the process, when you have gathered evidence and intelligence and are able to follow up on it. Basically, the practical thing for us, which we need to address at the end of the inquiry and come up with recommendations, is how to record. A recording system is needed, from producer to end of life, disposal or whatever it is. Have you any examples of that? Is there anything out there? Is it the likes of invoices, audits, or what?
438. **Mr Burnett:** Yes. If you look at waste in electronics, an area where producer responsibility has been dealt with, it is done exactly like that. It is linked into sales and what is produced. What is done is almost like a mass balance. You could do that to some extent now within the existing enforcement framework. If you go into a retail outlet, they will have sold X amount of tyres. Normally, when you buy a tyre, you give them your waste tyre. Therefore, with a certain tolerance, if the retailer sells 100 tyres, you would expect them to dispose of, say, 95 or 96 tyres. If, suddenly, their books showed that they had disposed of only 50 tyres,

- alarm bells would ring. Even within the current framework, that is possible.
439. However, by introducing more of a producer responsibility framework, there would be a better chance of a more auditable trail being introduced. To some extent, you can mark tyres and what have you. That would help. By doing that, you would improve the situation. Although it would not give you 100% guarantees in everything, it would certainly lead to innovation. It would encourage retailers to keep prices down. It would also help enforcement. Totally changing towards more producer responsibility would be a win-win situation on a number of fronts.
440. As regards the detail behind it, I would love to be able sit here — in fact, I would not sit here and tell you the answers. I would keep the answers for my own commercial ventures. I would love to be able to say that I had the answers, but I do not. I believe that the answer lies somewhere within that approach. It is a matter of taking the different guises of producer responsibility and applying the right ones for this Administration.
441. **Mr Boylan:** I have one final question. It is important that we look at it from the point of view of producers. There are a lot of car dismantlers. I know that, in some areas, people can go to car breakers or car dismantlers — whatever you like to call them — and pick up a reasonable tyre for a certain amount of money. Unless you can trace that tyre back to the production line, you will lose out. That is an element of it as well. I think that that is the way to go, it is just whether we invoice it or come up with some marking for tyres.
442. **Mr Burnett:** We already mark sheep and cows, so why not tyres? Products have serial numbers. It is not beyond the bounds of possibility. Do you mark it or put a microchip in it? There are ways round every system of doing it, but there will be a best way. Microchipping has some advantages. It is a way to do it. You tie that into the auditable trail of where those tyres will go, and it makes it a wee bit easier. We also have to recognise that there is a slight cost associated with that. However, when ordinary people are paying close to £2 for a tyre, I do not believe that introducing a more producer-responsibility approach will actually make it more expensive. I cannot see how that could be the case. I am sure that manufacturers will say that it would be, but I would like to see their evidence for that, because I am not so sure that it would. The producer responsibility will motivate them to find a way to do it that keeps the cost down, because it will be in their commercial interests to do so.
443. **Mr Boylan:** Do you still think that the Irishman will find a way round it? [Laughter.] Sorry, you do not have to respond to that.
444. **Mr Burnett:** Or a Scotsman, I might add. I would not be nationalistic about it in any fashion or form.
445. **The Chairperson:** Let us just say “people”; that does not point to anyone.
446. **Mr Burnett:** I am quoting the article that I read.
447. **Mr W Clarke:** Thanks, Ricky, for your presentation. You have probably answered most of the questions that I was going to ask about the audit trail. That is the biggest weakness, and you outlined that. You need a document, an audit that follows the tyre’s cycle. For example, it could go for retreading, but the document needs to follow it on that journey. I agree that the microchip is the best solution. You could cut out a serial number and dispose of the tyre whatever way you want. It is slightly more difficult to do that with a microchip.
448. I liked the idea of an exchange scheme where you would be exchanging your tyres for new ones, and there is an audit of that as well. A number of European countries have not-for-profit organisations that collect the tyres on behalf of the producers, and they actually finance those organisations. First, what are your thoughts on that? Would that work, given the current economic climate, with high

- unemployment? Is there an opportunity for that to work in the North? Secondly, have you any data on the number of tyres that are recovered in Arc21's jurisdiction, and how many are actually used in Arc21's jurisdiction?
449. **Mr Burnett:** I will deal with the second question first: no, I do not have any data. We took the view that we would leave it to individual councils to bring individual data to the Committee, rather than collate it, because the councils are better placed and, in fact, wanted to respond to you individually more than collectively. We felt that our response should look more at the strategic picture, which you touched on in your first question about the exchange scheme and the not-for-profit, social-enterprise-type approach. I think that it lends itself very much to that type of approach. There are advantages that certainly could be got from that. I am sure that it would appeal to manufacturers and retailers as well, because they would be able to demonstrate an element of corporate social responsibility. They would be able to show that it is not about making money but about the proper, responsible management of a resource rather than a waste product. That type of approach would certainly tick an awful lot of boxes.
450. **Mr W Clarke:** My thoughts on that would be that the collection point would be moved on to another part of the business, the not-for-profit business, which would actually recycle the tyres.
451. **Mr Burnett:** Traditionally, as you know, the collection point is the retail tyre outlet, and that is probably the core. You go to the tyre depot, change your tyres and leave the old ones there. I suppose that, to some extent, it is unlike any other waste stream in that regard. That would still be the core — the actual collection point. The social enterprises and the third sector could come in and take it from there. I think that, on the whole, it would be difficult to move away from having the collection point away from the point of sale. You could still have other points of collection to offer as an alternative. However, the retail point would still be the heart of it.
452. **The Chairperson:** Thank you very much, Ricky, for coming to speak to us.
453. The next presentation is from Kerr's Tyres. There is no briefing paper; it is just an oral briefing from Norman Kerr, who is the proprietor of Kerr's Tyres.
454. **Mr Norman Kerr (Kerr's Tyres):** Hello.
455. **The Chairperson:** Hello, Norman. You are very welcome. Thank you very much for coming to Hillsborough to talk with us. Please give us a presentation of about 10 minutes, and then members will have questions to ask you. Is that OK?
456. **Mr Kerr:** Yes. Basically, we in the tyre industry see the problem as coming from us. We are not regulated or licensed; there are no laws or legislation to say what we should do with our tyres. We all have our own ethics as tyre dealers and we dispose of our tyres responsibly, but the majority of the trade is where it originates from. There is no licensing or legislation; there is absolutely nothing. That is where the problem starts from. The tyres are fly-tipped, put on bonfires or given to farmers for their silage heaps. Until you go to the root of the problem, it will always be a problem for Northern Ireland.
457. As a body, we are quite willing to pay to be licensed. We understand that the Assembly does not have money to regulate it, police it and enforce it. The majority of tyre dealers in Northern Ireland are more than happy to pay to be licensed and for you to police us. That is where we are at the moment.
458. **The Chairperson:** Sammy Wilson will be very pleased to hear that.
459. **Mr Kerr:** We understand that, in these economic times, you cannot find £100,000 a year to police the tyre industry. However, it is a problem that you need to address. We are reasonable tyre dealers; we are willing to pay to be licensed so as to regulate what happens with our waste tyres.

460. **The Chairperson:** Who should be dealing with the waste tyres and who should be disposing of them? The manufacturers?
461. **Mr Kerr:** No, it is our responsibility. We are the people making profit from the sale of the new goods, so it is our responsibility to deal with the removed product at the end of the day. We are quite happy to send them to licensed tyre dealers to get them shredded and used in an environmentally friendly manner, but nobody will police us. It might sound strange, but we are asking to be policed. We want somebody to say to us, "You fitted 40,000 tyres; can you show me what happened to the used 40,000 that you took off?" Absolutely nobody does that. Until you do that, it will keep going.
462. **The Chairperson:** That is where the problem is. Nobody manages or monitors it.
463. **Mr Kerr:** There are four licensed dealers in Northern Ireland that can dispose of your product. None of them has ever picked up a tyre from a used tyre dealer. Where are those tyres going? They fit between 15% and 25% of the tyres in Northern Ireland, which is about 250,000 units. Where have they gone to, and where are they going to?
464. **The Chairperson:** They have gone missing.
465. **Mr Boylan:** Thank you very much for coming to the Committee. It is my understanding that most people who change tyres pay perhaps £1.50 or £2.
466. **Mr Kerr:** Yes; to dispose of the product.
467. **Mr Boylan:** Yes. As a customer, that is fine. I do not mind paying it, but I want them to be disposed of properly. There are a couple of different sets of people. There are the likes of you and the retailers, who are selling the tyres. You also have the car dismantlers. I do not know how you would get a record of that, because I can go to any car dismantler and buy a tyre for £20 with a reasonable tread on it. A lot of people do that, especially in these economic times. Are we saying that none of that can be traced?
468. **Mr Kerr:** Correct.
469. **Mr Boylan:** You are coming from within the company. Are you saying that there should be a paper trail? Do you get invoices for tyres?
470. **Mr Kerr:** I have a paper trail. Reasonable tyre dealers have a paper trail. It is simple. You cannot get in a taxi unless it is licensed — well, you should not — and hand over money. However, you can buy a tyre anywhere from anybody.
471. **Mr Boylan:** We are trying to get the operator licensing passed at the minute. Do not record that. [Laughter.]
472. I agree with you. There is a beauty spot outside a town in my constituency where people go walking and use the lakes for fishing. I guarantee that, if I were to go there today, I could find tyres dumped in the forest. I phone the council regularly about that. Someone from the council comes down, and this person and that person do not want responsibility. Eventually, thankfully, someone from the local council will lift those tyres, but that is down to the ratepayer. What bugs people is that they pay £1.50 or £2 for disposal yet tyres are found lying or, when you are driving down the road, you see someone stop and fire them over the hedge. That still happens. We will not get all of it, but, if we can get 95% of it disposed of properly —
473. **Mr Kerr:** I cannot understand why you cannot get all of it. It is not rocket science. It is quite simple.
474. **Mr Boylan:** The only way to get all of it is to have a proper paper trail and a proper audit of every tyre that is produced. There will come a time when car dismantlers will go over to England and bring cars back here and break them up. You need to have a clean slate and start all over. If you are going to code, mark or chip every single tyre that is produced from 1 January 2012, there will still be a transitional period until we get rid of the existing tyres and get on the straight and narrow. Have you any suggestions to the Committee on how to introduce that? I do not think that there is a foolproof way, but we should try

- to get the biggest possible majority of these tyres.
475. **Mr Kerr:** There is no foolproof way in anything, and people will always find a way around it if they want to. That goes without saying. Anyone who supplies or fits a tyre in Northern Ireland should have a licence, and, if they do not have one, they should not be allowed to do it. It is that simple. We will fund the money for you to employ the people to go around and police it. As a body, we are quite happy to pay £1,000 a year per centre just to have a licence. That would allow me to be inspected, and I could show that I fit 20,000 tyres a year and my paper trail for the 20,000 tyres that I had taken off.
476. We are quite happy to do that as a body. I have spoken to probably 80% of the tyre dealers in Northern Ireland, not one of whom has an issue or a problem with it. In fact, they are all saying that they hope something comes of it. The other 20% are scrap men and second-hand dealers, and they will not buy licences but try to work underhandedly. Dealers from our body would be paying between £150,000 and £200,000 a year to pay for one or two people to work on the ground. We could phone them to say that Joe Bloggs has opened a tyre shop next door. If he does not have a licence number, he should not be trading. If he trades legitimately, has insurance and disposes of his product correctly, he has every right to trade, like everyone else.
477. **Mr Boylan:** Taking all of what you said into consideration, tyres need to be marked in some form, because there is no way that you would be able to trace them.
478. **Mr Kerr:** Why could you not trace them?
479. **Mr Boylan:** Obviously, there needs to be some number identification, and that cannot just be an invoice, because you are given a certain number of tyres on an invoice. There might be a miscalculation. If we are serious, the only way that we could possibly do this is to identify clearly each tyre.
480. **Mr Kerr:** You cannot do that. It is too impractical.
481. **Mr Boylan:** At the production stage, it would not be very hard to put a number on it.
482. **Mr Kerr:** It has been tried all around the world, and it will not happen. The manufacturers will not do it. You need not think that the manufacturers will listen to us in Northern Ireland, which represents 0·01% of the tyre industry, and decide to chip tyres. If they were to do that, they would have to do it for everyone.
483. **Mr Boylan:** We are not saying that the tyres should be chipped. If we are serious about trying to deal with the problem, the tyres need to be identified. Some marking is needed. It could be a simple mark or a simple number.
484. **Mr Kerr:** Every single tyre produced in the world has a unique code. There are serial numbers on them, so that is not an issue. The issue is who will write them all down. I fit 40,000 tyres a year; I would have to employ two men to register 40,000 serial numbers every year. That becomes impractical.
485. **Mr Boylan:** We will take it on to the next step. If the manufacturer is marking a tyre and taking down the serial number, the information has to be stored somewhere. It has to be on a database. The manufacturer does not just manufacture a tyre and go through all the business of putting a number on it without having some kind of database. I would safely say that most of the main manufacturers have that. Are you saying to me that they do not?
486. **Mr Kerr:** No, they do not. They can only identify them as batches. That is purely and simply for quality control. The American transport industry also insists on a Department of Transport number.
487. **Mr Boylan:** So it is only in batches.
488. **Mr Kerr:** It is only done in batches, and that batch could end up in China, here or absolutely anywhere. As reasonable tyre dealers, if I fit 40,000 tyres I have

- to provide a paper trail of where my 40,000 tyres went to. Those 40,000 tyres had to go to a licensed recycler of that product. You then go to him and say: "Joe, David and Norman each gave you 40,000 tyres. What did you do with those 120,000 tyres?" That is the next step in the line. He has to say to you: "I shredded 200 tons and sent them to Readymix for use on roads. I took the steel to T-Met to be recycled there. There is where my by-product has gone."
489. We do not have 1,000 outlets to get rid of tyres. We have only four. We can send them to only four places; that is it. So you do not have to run to 1,000 people to see what happened. You just have to go to four people to say: "Right, they told us they gave you the paperwork for those tyres. What did you do with them?" I am not trying to be funny but it is that simple.
490. **Mr Boylan:** We are trying to find a way around, but, listening to what Norman said, it seems a very simple process: just get a document for whatever number of tyres, go to wherever you dispose of them, and that is it. The whole enforcement idea behind all that is that as long as somebody is checking on that every year or checking the documents —
491. **Mr Kerr:** That is part of your licence remit every year. To get a licence renewed, they must come out and inspect whether you have insurance and whether you sent your tyres off reasonably. If you did, well and good: you will get your licence renewed. If you did not, it will be revoked and you cannot trade. Personally, I think it is quite simple — maybe it is too simply.
492. **Mr Boylan:** We are only asking. That is why we are doing the inquiry. However, it seems to me that if it was that simple, I would not still be phoning up the council to get tyres removed from forest parks where somebody fired them over a hedge. That is the problem.
493. **Mr Kerr:** It has always been that simple, but nobody has been willing to pay for it to make it simple. As the National Tyre Distributors Association, and as independent tyre dealers within Northern Ireland, we are willing to pay for it because we can clearly see that nobody else is. The Government are not willing to do that and you do not have the money. We understand that. We are not having a go at you to say why are you not paying for that? We understand that nobody has the money. Money has to go elsewhere where there is more of a priority. We are willing to say that we will pay for it.
494. **Mr Boylan:** Norman, the consumer will pay for it.
495. **Mr Kerr:** Ultimately, the consumer will pay for it.
496. **Mr Boylan:** That is the main one: the consumer will pay.
497. **Mr Kerr:** Ultimately the consumer will pay for it.
498. **Mr McGlone:** They are at the minute.
499. **Mr Kerr:** The problem we have is that they are paying for it already and their tyres are not being disposed of legally.
500. **Mr Boylan:** We know all about it. Thank you anyway for your presentation.
501. **The Chairperson:** Sometimes, a simple, straightforward method is the best method if it is workable.
502. **Mr Boylan:** Throwing them over the hedge.
503. **Mr McGlone:** Thanks very much, Norman, for bringing a bit of light to this issue. My father, God rest him, was in that particular trade, too. I understand that even if you had all the numbers of the day on each and every tyre, they would be buffed off. We know the way it works.
504. I want to get a wee bit more clarity around what you are saying. You have a licence. Your VAT returns will show how many tyres you take in, and your returns at the end of the year will show how many you sold. They will also show how many you charged £2 for on each invoice. You are saying that that should

- be tied in with the licence so that you have an input from the submissions made to the VAT authorities, you know precisely the total number of tyres remaining in stock, and everything should square. If that does not square, your licence is not renewed.
505. **Mr Kerr:** The first question is why it does not square. If you cannot explain that, there is obviously a reason. A problem can be identified with that dealer. At that point, it is up to you to police that in some way, in whatever fashion you wish, whether through fines or treating it as a criminal matter and reported to the police.
506. **Mr McGlone:** The second thing is the associated costs. We are probably already paying the cost of gathering up old tyres wherever they are and getting them dealt with, and for additional enforcement measures. It seems clear to me what you have outlined as someone in the trade who knows what it is about, how it works and how it can potentially go wrong. There is only one thing, and I suppose we can do nothing about the breakers because they are unregulated: the guys who are sending the tyres they are maybe taking off old cars somewhere along the line and selling them off for whatever it may be. Those people could still prove to be a problem. Have you any ideas on that?
507. **Mr Kerr:** Yes, they have to be licensed. If you want to sell a tyre in Northern Ireland — new, used, second-hand or whatever — you have to be licensed.
508. **Mr McGlone:** So you are saying license the whole works.
509. **Mr Kerr:** Yes: if anybody sells a tyre in Northern Ireland, they have to have a license.
510. **Mr McGlone:** I am trying to drill down on that bit, because that will probably be the problematic one.
511. **Mr Kerr:** The guy who is breaking a car is not where the issue stems from. He is removing a second-hand product as such. He is not actually taking an old product back in for that. He is just giving them to you and you are disposing of your own tyres yourself, usually in a car breaker's yard. They buy the complete unit. They just screw a set of wheels on and leave the other set of wheels lying in their garage.
512. **Mr McGlone:** To drill down a bit on that, how do you regulate that bit? You have just said that he comes in and somebody says, "There is a set of wheels, take them with you." What about the old tyres?
513. **Mr Kerr:** Each person will be responsible for them themselves. There is nothing you can do about that. It will not be a business. It will be an individual, through his household waste or whatever he does with his household waste. He will have four complete wheels or four tyres sitting in his garage. How you overcome that one is beyond me, but I reckon that 0·01% of people in Northern Ireland buy their tyres through a salvage yard. It is not a big business by any stretch of the imagination.
514. **Mr W Clarke:** Thank you, Norman, for your presentation. I agree entirely. It is simple enough if you get a licensing system with proper audit and proper enforcement. That is the key and that is why we are here. The Committee was frustrated that enforcement was not taking place and that there was an ad hoc approach. It has done a disservice to genuine traders like you. It is simple enough, and the recommendations coming back from this will clearly point out that there needs to be properly resourced enforcement and a proper licensing system, one where you can lose your licence. Who would you like to see carrying out the enforcement? Would it be the Environment Agency, or local authorities, or should some other not-for-profit organisation be set up?
515. **Mr Kerr:** A not-for-profit organisation should be set up that answers to a Committee, within the Environment Agency or whatever organisation you recommend within the Assembly. It should not be done by the tyre industry itself and it should not be done by anybody associated with it. It needs to

- be someone who is independent and who answers to you under your payroll, although we will fund the pot to pay that person. As an industry, we do not have a problem with that. It needs to be independent, and it needs someone with a bit of savvy and a bit of knowledge as to what to look for.
516. **The Chairperson:** A tyre commissioner?
[Laughter.]
517. **Mr Dallat:** A tired commissioner.
[Laughter.]
518. **Mr Boylan:** It is a burning issue at the minute.
519. **Mr W Clarke:** I am happy enough with that. I agree. It is a simple enough issue if the will is there to deal with it and you put in place proper licensing, regulation and enforcement.
520. **Mr Kerr:** The will is there from the industry and the money is there from the industry. It is just a matter of somebody policing it and taking it upon themselves to do it for us. We are quite willing to do it and pay for it.
521. **The Chairperson:** You suggested a figure of £1,000 a year. Would that be acceptable to the industry?
522. **Mr Kerr:** It would be on the first licence. However, when the licence is renewed every year it would have to be at a different fee. However, for the first initial inspection, the industry as a whole feels that £1,000 is a fair value. We reckon that there are about 500 tyre shops in Northern Ireland. Realistically, you will get 300 of them and that will generate £300,000 in the first year, which should be enough to pay a salary for a few years. The licence fee could then be reduced to £100 a centre each year thereafter, and we would be willing to accept that. It would be enough to fund it for quite a long time.
523. **The Chairperson:** It is well worth thinking about and recommending.
524. **Mr Dallat:** I am sorry that we did not have Norman here at the beginning of the inquiry. I have just a couple of questions, as all of them have been asked. What is your view on banning the sale of second-hand tyres? I am thinking purely from a road safety point of view.
525. **Mr Kerr:** From a road safety point of view it is a real problem at the moment. We had a meeting on Thursday night which normally lasts 20 minutes on that side of things, but lasted two hours because of the research that has been done recently. We see it regularly; unfortunately, the second-hand people do not have wheel alignment systems and do not invest in insurance. We spoke to insurance companies in Northern Ireland and asked whether a person is insured if he or she fits two second-hand tyres to a vehicle, goes off the road and the wheel falls off and kills four people. The answer is no.
526. **Mr Dallat:** Hopefully, Chairperson, there is space in our report for that. I feel very strongly about the issue. Day and daily I see the carcasses of cars being taken away, but a lot of the tyres are going back onto other cars. They have not been X-rayed and nobody knows what fractures are in them. That could lead to a blowout on the motorway. I support that.
527. There is another thing about your scheme. I believe that if people are licensed they are generally honourable and probably do not require any more than self-certification, in the same way as you make your VAT returns or income tax returns; you submit it, and there could be spot checks. It is not something that is going to be terribly bureaucratic. It seems to be a simple idea, although it would not solve the whole problem.
528. **Mr Kerr:** It is certainly not going to solve the problem.
529. **Mr Dallat:** I imagine that you can get tyres online; I do not know.
530. **Mr Kerr:** Yes, you can buy tyres online, but you have to bring them to the likes of us to get them fitted. That is not an issue either.
531. **Mr Dallat:** I am glad about that.

532. **Mr Kerr:** As a body, the only thing that frustrates us is whether we should pay for this and go ahead and do it if Joe Bloggs is going to open up next door without a licence. That is when we would kick up about it to you and ask why he is not being inspected and closed down and why he has not paid for a licence.
533. **Mr Dallat:** Presumably, if a tyre distributor such as you is to be licensed, there are probably other basic things to look for apart from an ability to record the number of tyres purchased and sold; in other words, safety aspects relating to the equipment that is used for fitting tyres. I know of people who have been killed in tyre depots where rims have blown off and things like that. Our little inquiry into the disposal of tyres could include some sound recommendations that would add nothing to it.
534. **Mr Kerr:** It is the only thing in the tyre industry that is legislated for, which is the duty of care. It is the only way, as a body, that we can tighten up on what people are doing. It is a problem that gives us all a bad name. We all get tarred with the same brush, unfortunately.
535. **Ms P Bradley:** I am a small-business owner. Yours is not a small business. I do not know what your turnover is, but it is not the same size as mine. I know that I could not go to the Government and give them a grand and ask them to regulate something for me. What do you get out of this? There are lots of small businesses out there. There is one in my area that fits tyres as well as providing car washing and valeting. He is responsible, but tyres are not his main work; he does very few tyres. He is very good and very responsible; I know that because we have spoken about this issue.
536. There are lots of responsible small-business owners who are totally out of the market and who will not pay £1,000 to be regulated because it is such a small part of their business. Owners of small businesses have to be more imaginative and innovative nowadays to try to keep their businesses afloat.
- There are not too many small business owners who will sit there and say that they will give us £1,000 a year.
537. **Mr Kerr:** The small business will become a medium-sized business over the head of this. It will eliminate the 1,000 other tyre people that you can go to in Northern Ireland that do not dispose of their tyres legally and correctly.
538. **Ms P Bradley:** Do you think that small businesses will grow because of this?
539. **Mr Kerr:** Yes, because Joe Bloggs, who fits three or four tyres a week and throws tyres in the skip will dwindle away. Those people will be got rid of. That customer base will stay with —
540. **Ms P Bradley:** I do not think that it will get rid of them, to be perfectly honest.
541. **Mr Kerr:** But at least they will be policed. That is what we are doing it for. We do not care about the licence, but the only way to police it is through the licence.
542. **Ms P Bradley:** I agree wholeheartedly in principle with what you are saying. I think that there is a simple solution to this. We will take this back, and if we say, "This is a great idea; this is what we will do", I can just imagine —
543. **Mr Kerr:** Paula, I really do not care if I pay only £1 a year for a licence. We are just trying to think of a value; we do not care what it is. I do not care if I only give you £1 as long as someone is policing it.
544. **Ms P Bradley:** One thousand pounds is a lot of money —
545. **Mr Kerr:** That is fine. Make the value £1. The value is irrelevant to us. What is relevant to us is that someone is policing it. If that means that we have to give you £1,000 to get it policed, we will give you £1,000. If it means that we give you £1 to get it policed, and you pay for it yourselves, that is brilliant. I am a reasonable tyre dealer; I do not care. I would gladly pay £1. The fee is totally irrelevant to us. It was mentioned so that you could pay for the licensing scheme to be policed.

546. **Ms P Bradley:** That is very generous of you.
547. **Mr Kerr:** As an organisation, we will make a one-off donation to pay somebody's fee for whatever, and you can give out the licences free of charge, as long as the licences are done properly.
548. **Mr Dallat:** Paula makes a very valid point, and it needs to be discussed. However, certainly where I come from, if I leave my car in to be serviced and it needs new tyres, the man from the garage drives it down to the local depot and, presumably, he gets his 15% or whatever it is. I mean, you do not charge him the full price, do you?
549. **Mr Kerr:** No. If we had a garage dealer who was coming to us with all his cars, he would buy his tyres at a different rate from the rate that you, just coming in off the street, would pay. That is correct.
550. **Mr Dallat:** It is important, Paula. That is what happens in most cases that I know of. Garages do not undertake to put in all the balancing equipment and stuff that is needed, if tyres are not their main business. They go down the road and get them done at the tyre depot, they lift their profit margin and that is it.
551. **Mr Boylan:** Just on that point, the whole notion of paying £1.50 or £2 a tyre is that an element of that should go into enforcement. Do you understand? That should be the practice. The principle behind paying is the proper disposal of the tyre, and that money should go towards enforcement.
552. **The Chairperson:** People are quite willing to pay.
553. **Mr Boylan:** I agree with Paula. Given the hard times, if you run your business and it is viable and the consumer is paying for it, which they do, that should cover it. Maybe we could discuss a price for a licence; it is open for discussion, but, generally, it is recovered through what we already pay.
554. It has been enlightening, to be fair. It seems nearly too simple to be true, to be honest. However, we will discuss that. It has been a good enough presentation. In the current economic times, small to medium-sized businesses need to be given an opportunity too.
555. **The Chairperson:** The fee would probably not just be plucked out of thin air; it would be consulted upon with the industry.
556. **Mr Boylan:** If that is the way we propose to go. It actually could be self-regulatory, by the very fact of having a licence and having to send in tax returns and everything else. That could be checked; do you know what I mean?
557. **Ms P Bradley:** There is a simple answer.
558. **Mr W Clarke:** There has to be proper enforcement. I do not think that this self-certification stuff will work. What you need is proper, robust enforcement. The reason why we are in this position now is that that is not being carried out. It is probably down to finance, as Paula said. I understand where she is coming from. Small businesses are trying their best. I think that there should be a sliding scale of fees, depending on how many tyres you are selling or replacing. There is room to manoeuvre. I agree with the point that Norman made about needing to target the illegal operators — the cowboys who are putting tyres on bonfires and dumping them all over the place — to grow the small businesses.
559. Norman: back to enforcement. That is the key to this. How many times a year are you inspected?
560. **Mr Kerr:** The three centres? Once in the last five years.
561. **Mr W Clarke:** Well, there you are. I rest my case.
562. **Mr Kerr:** In that period, we have fitted 200,000 tyres or more.
563. **Mr W Clarke:** And you wonder why there is a problem.
564. **Mr Boylan:** We are not saying that Norman is doing anything wrong. He is operating his business.
565. **Mr Kerr:** Willie is asking how often I have been inspected. I have not been,

- but I want to be inspected. That is the issue.
566. **Mr Boylan:** We agree with that.
567. **Mr W Clarke:** I want to tease that out. I am not saying that Norman is doing anything wrong, but there is an opportunity for everybody else. Norman has a big company, and he is not being inspected, so how are they targeting the illegal ones? They are not, and that is the problem.
568. **The Chairperson:** The people know that there is nobody to watch over and inspect them, so they carry on the illegal practice.
569. **Mr W Clarke:** The industry wants regulation, licences and enforcement.
570. **Mr Kerr:** We want regulations and enforcement, and we want to be policed. We are willing to pay to have it done. That is basically where we are coming from as an industry.
571. **The Chairperson:** Thank you very much. You have given us a lot of food for thought, and we will incorporate your remarks into our recommendations.
572. Our third briefing is from Southern Waste Management Partnership (SWAMP2008). We are joined by Graham Byrne, chief officer, Jason Patterson, technical officer, and Pearse McAleer, chair. Gentlemen, you are very welcome. Thank you very much for coming all the way to Hillsborough to give us a presentation. You can start with a 10-minute presentation and then members will ask questions.
573. **Mr Pearse McAleer (Southern Waste Management Partnership):** I am Councillor Pearse McAleer from Cookstown District Council, the current chairperson of SWAMP2008. I thank the Committee for giving us the opportunity to contribute to your inquiry into used tyre disposal. I am joined by Graham Byrne, who is the chief officer of SWAMP.
574. **Mr Graham Byrne (Southern Waste Management Partnership):** I will give a brief overview of SWAMP's position on used tyres and will then transfer to Jason to get into the technical details. We have put together a table to show the numbers of tyres that we have had recycled in the area over the past five years. The total is in the region of 70,000 tyres of all shapes and sizes. That is roughly 14,000 a year that the councils have had responsibility for, and the average cost of recycling those has been between £15,000 and £17,000 a year. Our current rate is £1 to have a car tyre recycled by a firm in Craigavon, and that contract has been procured on behalf of our councils. The main quantity of those tyres comes from fly-tipping incidents. Some are removed from bonfires, and Jason will talk a little more about that. Some councils allow one or two tyres per person at civic amenity sites, and the main reason behind that is that, if we do not accept them, they will most likely be tipped in the country somewhere.
575. We have put together a few key facts. I know that you have had evidence on this before, but I will outline a few high-level facts that we got from the Environment Agency website. In the UK as a whole, it costs £2.3 million a year to investigate and clear illegal tyre activity. I thought that that was quite an interesting one. The second fact is that 450,000 tons of used tyres a year, if laid out in a straight line, would stretch from London to Sydney. There were a few other key facts. There are 18,000 tons of used tyres a year in Northern Ireland, the vast majority of which are obviously recycled properly. Our concern is the tyres that are not recycled but stored in large areas such as landfill sites. We are aware of one site in Wales that has been on fire for a number of years. They just cannot get the fire put out, so the pollution involved is extreme. Jason Patterson, our technical officer, will take you through the detail of this.
576. **Mr Jason Patterson (Southern Waste Management Partnership):** I will go through some of the details surrounding the involvement of SWAMP2008 in the disposal of tyres in the region. In theory, councils should not have to deal with the disposal of any tyres if the policies

- in place with licensed tyre suppliers and garages were carried out correctly. We believe that the industry should be given overall responsibility for managing all tyre disposal, including fly-tipped or illegally dumped tyres in our region. That would reduce the need for our constituent member councils to have to deal with it and the associated burden on them and, ultimately, the ratepayers. In a number of consultations, including the revised waste framework directive, we have requested that there be overall producer responsibility.
577. On the issue of producer responsibility, historically, tyres have been banned from landfill since 2006. A voluntary producer responsibility system is in place, but there is no statutory responsibility on those producers to ensure that all tyres are sent for recycling or reuse. We believe that producer responsibility is the best way to ensure a cost-effective approach and to facilitate a fairer and tighter method of control.
578. Graham, in particular, has worked very closely with the Department to put together a number of other producer responsibility regimes, including work on the ultimate disposal of end-of-life vehicles and the waste electronic and electrical equipment (WEEE) responsibilities, whereby the burden of responsibility for ensuring that material, including fridges and batteries, is disposed of correctly is put back on the manufacturers and producers.
579. Historically, especially in the rural areas covered by SWAMP, there has been a build-up of tyres in the farming community following a change of farming practices over time. The move away from clamp silage to bale silage has left a lot of tyres in the countryside. We believe that the Ulster Farmers' Union should work closely with NIEA to try to resolve the matter and to remove the large stockpile from the countryside.
580. I will move on to the legal framework. We are very concerned about NIEA's ability to check the validity of current waste management licences and, more particularly, suspension orders on those licences. We need to know, on a weekly basis, whether the reprocessors that some of our councils are using are licensed to accept waste tyres. Graham has written to the Minister to request that a current live database be established for licensed reprocessing facilities, and, on the back of that, that the vehicles used by the reprocessors have some sort of identification, similar to the taxi disc plate system, to identify whether they are actually licensed reprocessors and hauliers of waste tyres.
581. Thankfully, the burning of tyres on bonfires is a diminishing problem in our region, mostly due to the very good work of council community relations officers. However, it still exists in some areas.
582. We have communicated our concerns about quantitative thresholds to the Department on several occasions. The threshold of waste that the Department wants councils to deal with is 20 cubic metres, which is an awful lot of tyres. It would mean that councils could end up paying thousands of pounds to deal with one individual incident of illegally dumped tyres in an area. We are asking for that threshold to be reduced substantially, down to the Scottish model of six cubic metres.
583. **Mr G Byrne:** We would like to stress the importance of collaboration between central and local government if we want to get a successful resolution to this problem. We have done that before, as Jason mentioned, on a number of producer responsibility schemes. That is the way to go. We would like to see cost recovery for the councils' involvement in that.
584. As Jason said, we have not had a response from the Minister yet — we hope to get one soon — with regard to our members' suggestion that there be a live database for licensed facilities. Briefly, the reasoning behind that was that we were about to award a contract for tyre recycling, and we were unsure of the status of the company that we were about to award it to. Another member suggested that, if there was a system similar to taxi plates, you would be able

- to tell at a glance whether a vehicle was licensed or not.
585. **The Chairperson:** Thank you very much. We heard earlier from two other groups, in a similar vein, really, on producer responsibility and better links between the NIEA and local government. That all makes sense. The last group mentioned licensing of tyre retailers: a clear paper trail of how many new tyres they sell in a year and how many old tyres they dispose of, with the licence fee to be determined. The industry is apparently quite willing to pay a fee to be licensed to be able to operate without the illegal ones. What is your view on that?
586. **Mr G Byrne:** That could all be part of a producer responsibility scheme, really, as long as there is a duty of care. We know how many tyres go into the system. As long as there is a reasonable way of finding out that they are all covered and recycled, we are open to all considerations and keen to be involved in developing that.
587. **The Chairperson:** Cathal, do you have a question?
588. **Mr Boylan:** I had better get my question in quickly, before Willie comes back.
589. **Mr Hamilton:** I nobbled him on the way in.
590. **Mr Boylan:** Willie will have his own ideas when he comes back.
591. With regard to the presentation that we received previously, do you think that it would be a major burden on the industry if there was a suggestion of marking every single tyre in some form? Is that a route to go? The Chair has raised the issue of invoices. Maybe you could have three- or four-year annual checks, or monthly checks or whatever it is, going round the producers to check the documents and invoices. Do you think it would be a problem? Would it be a major burden to have every tyre identified in some way or form?
592. **Mr G Byrne:** We have spoken about this, and we have read the Hansard reports of the other evidence and collected evidence ourselves. It seems to be the case that most people are paying about £2 per tyre for recycling. We are paying £1 per tyre, so we believe that there is financial capacity in the system to bring in an additional financial burden without adding a further burden —
593. **Mr Boylan:** But there are practicalities of doing that. The last witness said that tyres are made up in batches. I am only throwing that out because at the end of this inquiry we will have to look at what way we want to resolve it or bring recommendations. If you go into any shop, there is a barcode on nearly everything. I am only using that as an example.
594. **The Chairperson:** Even a packet of crisps has a barcode.
595. **Mr Boylan:** There are millions upon millions of items out there being sold on the markets and in shops and whatever, and they are all barcoded and identified. What I am saying to you is, and I asked the question the last time, do you feel, in your experience — or if you have any knowledge of it happening anywhere else — is there any suggestion that it is a major burden to identify tyres, be it microchipping or even coding? That is the question; I am just asking if you have any views.
596. **Mr Patterson:** Graham and I both discussed his previous work on producer responsibility in relation to fridges. He mentioned that, historically, there was a type of tag put on to every single fridge that came in to the yard.
597. **Mr G Byrne:** It is just setting the system up, to be honest. Most people fear change and do not want to bring additional systems in, but once they are in, those systems seem to operate fairly smoothly.
598. **The Chairperson:** Would having a serial number or a microchip incur a lot of costs?
599. **Mr G Byrne:** I really do not have a figure for the costs, but as I have already said, I think there is probably a free board of £1 already in the market. I do not imagine that it would cost more than that per tyre.

600. **Mr Boylan:** It is an interesting point, Chair. It seems to me that businesses now produce tyres and go to the whole bother of making them up in batches. To add a wee bit of a database or something else in, just for a security check and all — I am not saying that that is the way to go, I am just raising it.
601. You mentioned the work on end-of-life vehicles, WEEE and the batteries issue, and producer responsibility. Is there anything from the practical workings of that, bar the tags that you mentioned, that could be brought in to clearly identify tyres or help us in making sure that the majority of used tyres are disposed of properly?
602. **Mr Patterson:** With all the producer responsibility schemes and regimes that are in place, the key, from our perspective, is full cost recovery for the councils. That will be the key to any regime that is proposed. WEEE works very well, in parallel with the battery scheme, where councils do not pay out any money as such. The materials come into the yard and are sent off for reuse or recycling, but on the back of it the recycling schemes contribute at the very beginning to the upgrading of the council facilities to accept these materials. That is the key to it: full cost recovery, and any additional infrastructure that has to be built or put in is covered by the manufacturers.
603. **Mr G Byrne:** That is a key point, Chair. We already have the network of facilities, and if there is producer responsibility and it is free to the public to bring tyres into the sites, that is how the other systems have been so successful.
604. **Mr Boylan:** Sometimes when we are going through this process, people forget that ultimately it is the consumer that pays for it, no matter what, at the end of the day. We want to come up with a system. I am using the Armagh District Council area, where I am from. I am sure that I could take you down straight away to places where I know for a fact that tyres are dumped. It is a burden on the council. We have paid our £2 or £1.50, whatever it is. The council is going to remove them at some point. All it needs is some public representative to give it a phone call. That is not acceptable. We are trying to come up with some recommendations that will deal with it.
605. One final point, and this is the opposite end of the thing. The last day we went for a visit to some of the disposal companies and saw how they are actually trying to deal with this. Is there clearly a market out there strong enough to take the disposal of tyres, in terms of mats or reuses? Is there clearly a market out there for it? Have you any experience of that? It seems to me that we are baling tyres down in Portadown and shipping them halfway across the world for certain other reasons. Are we getting to a point where we are going to extend licences so that people can stockpile all these tyres? That is the angle that I am coming from. Can you comment on that?
606. **Mr G Byrne:** Stockpiling is certainly a concern in the SWaMP area. There is at least one site that has a massive stockpile, and certainly the local members and officers are very concerned about it. We believe that the market exists. Certainly, the company that we use has given us evidence that it has end markets. Obviously, with the price of metals at the moment, there is a ready market for that. Whether there is a market sufficient to cover all that is produced, or whether it will be used for energy recovery — it has the same calorific value as coal, and obviously the energy market is a fairly endless outlet.
607. **The Chairperson:** We have been to a few projects. They are certainly sustainable. They are obviously making a profit, or they would not be there.
608. **Mr Boylan:** The other side of it is Mr Carragher, who was in and gave us a wee presentation about how he wanted to go forward. We have to look at it in the round as part of this whole process.
609. **Mr McGlone:** Gentlemen, you are very welcome, particularly Councillor McAleer. It is good to see you, Pearse. Can we deal with the quantitative thresholds?

I just do not know enough about that. You have put it in your paper, and it has started to intrigue me a bit: the threshold for councils in Northern Ireland "should be set at 20 cubic metres" of tyres. Presumably, that is up to 20 cubic metres at one batch? A dump of up to 20 cubic metres? I was just trying to work it out in my head, from my limited experience at a place called Ballyronan that Councillor McAleer will know all about. In a cubic metre, you are probably talking about 20 tyres.

610. **Mr G Byrne:** More than that.
611. **Mr McGlone:** Aye, 20 or 25, depending on the size. That is an awful lot of tires, and an awful lot of liability and expense going back to the local authority. I can see an awful lot of merit in what you are saying. That is a big burden on the ratepayer in any given council area.
612. **Mr G Byrne:** That came as guidance from DOE, in conjunction with the Waste and Contaminated Land (Northern Ireland) Order 1997. Our response to that consultation was that we felt they should adopt the Scottish model of six cubic metres as a maximum. That was not the guidance that came back.
613. **Mr McAleer:** I should add that, particularly in the area that we both represent, it is a big burden. Cookstown is one of the places that would have waste tyres; something like 4,000 a year. It is a big burden.
614. **Mr McGlone:** It would be.
615. **Mr Boylan:** On that point, I know that we have agreed the protocols, but maybe that is something that we can look at. We have agreed that.
616. **The Chairperson:** The Committee's previous position is that we have accepted that 20 cubic metres is OK. We can stand over that; we think that it is acceptable. We have said there should be no hazardous waste for councils to deal with, but 20 cubic metres is acceptable.
617. **Mr Boylan:** Generally speaking. We went through the protocols, and it was only

afterwards that we found out about the hazardous waste. Now this issue has raised its head, and it will be very costly for councils if it is based on what the council actually has the capacity to deal with. Maybe this is one issue that we need to revisit.

618. **Mr G Byrne:** It is an unusual example of a non-hazardous waste which is going to be much more expensive to get rid of.
619. **The Chairperson:** Thank you very much for your input, gentlemen. We are hoping to produce a report early next year.

8 December 2011

Members present for all or part of the proceedings:

Ms Anna Lo (Chairperson)
 Mr Simon Hamilton (Deputy Chairperson)
 Mr John Dallat
 Mr Danny Kinahan
 Mr Peter Weir

Witnesses:

Dr Gillian Bruton	<i>DEPOTEC Project</i>
Dr Eamon McKeogh	
Mr Colm Conyngham	<i>Bridgestone Ireland Ltd</i>
Dr Isabelle Kurz	<i>Environment Protection Agency</i>

620. **The Chairperson:** We now have Gillian, Eamon and Isabelle. Thank you very much for coming. We also have Colm staying with us for a bit. If you could give us a 10 to 15-minute briefing, I will then open the floor for members to ask you questions. We also have your information pack, which I was reading last night.
621. **Dr Gillian Bruton (DEPOTEC Project):** My name is Gillian Bruton, and I am the project manager for DEPOTEC, which is the depolymerisation technology for rubber with energy optimisation to produce carbon products. I am a research fellow at University College Cork. I have a PhD in chemistry and a masters in energy engineering. I have 11 years' industry experience in process development, certification, technology transfer and start-up. My colleague Dr Eamon McKeogh, is the director of the Sustainable Energy Research Group (SERG) in University College Cork.
622. The DEPOTEC project is funded by the LIFE+ programme, which is the EU's funding instrument for the environment. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects that have European added value.
623. The project partnership for DEPOTEC involves Erneside Engineering, which is the co-ordinator of the project. It is a Cork-based company that is involved in electrical and mechanical design and installation, and it has previously invested in research and development of new renewable sources of energy such as pumped-storage, wind, solar and hydrogen. The other partners in the project are a Polish company, whose primary purpose is in the depolymerisation process development, and the Aristotle University of Thessaloniki, which will look at adding value to the carbon products produced during the process. University College Cork will look at the life-cycle analysis, policy and regulation, energy modelling and the economic evaluation.
624. The main objectives of the project are to identify the barriers that have affected the development of the process for end-of-life tyres (ELT). We want to understand the economic road blocks that have prevented its previous exploitation, and we also want to understand best practice and incorporate the process development and design energy optimisation methodologies and the planning and construction of the pilot plant into the end-of-life tyre management. We plan to identify the most effective testing procedures for gauging the quality of the materials that are produced from end-of-life tyres, and to develop new markets for end-of-life tyre products, with a focus on life-cycle analysis.
625. The composition of a tyre is complex. It contains 30 types of synthetic rubber, eight types of natural rubber, eight types of carbon black — we like to call it black carbon — nine types of silica —
626. **The Chairperson:** What is carbon black?

627. **Dr Bruton:** It is the reinforcement material. I suppose that the tyre guys could talk a lot more about it.
628. **Mr Colm Conyngham (Bridgestone Ireland Ltd):** It is like a glue. It helps to hold everything together.
629. **The Chairperson:** OK.
630. **Dr Bruton:** It offers a huge amount of properties, and I will talk a little bit more about those later.
631. Compared with other sources, tyres have high energy content, and that is what makes their use in things such as energy recovery, as alternative fuels for cement kilns, paper pulp mills and as a substitute for coal in steel plants, so interesting. From a materials recovery perspective, tyres are used as construction materials for embankments, as road insulation, for erosion control and, as you probably heard this morning, for crumb or ground rubber applications such as rubber modified asphalt, running tracks, equestrian tracks etc.
632. Depolymerisation is the chemical conversion, or breakdown, of organic compounds by heating in the absence of oxygen. In this case, it produces four products — a gas, an oil, a char and a steel — that can be used in a multitude of areas such as energy. It can also be used as a chemical feedstock in carbon products and in steel reprocessing.
633. Over the past two decades, numerous depolymerisation facilities have started up and failed, and a number are currently in pilot or demonstration scale. Depolymerisation technology is not new, and it has been there since the 1970s. The DEPOTEC project plans to look at the factors that have affected the use of end-of-life tyres in the depolymerisation process. We will look at everything including the technology; the technology economics; the reliability of supply; the end-of-life tyre management structure; the standards and restrictions on end-of-life tyre use and disposal; and the infrastructure that is available to allow the reuse of the materials.
634. A brief diagram in your packs shows the process. As I said, it is a thermal degradation process without the addition of oxygen. It is done through the application of heat, and it is a highly energy intensive process. Four products are produced: carbon black, or black carbon, because we can never go back to the original carbon black material; an oil; a gas; and a metal. Those can be produced in various quantities depending on the reaction rates, and the product ratios can be varied depending on the temperature, the residence time, the heating rate, pressure, degree of heating, feedstock catalysts and a multitude of other things that we will examine during the process development.
635. The key issue is that the depolymerisation gas has a high gross calorific value so it is sufficient to be used again in the process. Depolymerisation oil could also be used as a conventional fuel if a number of adjustments were made to it. We will look at the issue of upgrading the black char, or black carbon, which is produced during the process.
636. Although extensive time will be spent on the development of the depolymerisation process, we realise that that cannot be evaluated in isolation. We will look at a number of factors that will affect the economics of the overall process. They are as follows: security; location of supply; existing markets; market availability; location; process development costs for the environmental requirements around process design, planning and policy; the pretreatment costs involved before it goes into a rotary kiln, which is the furnace that we propose to use; equipment and infrastructure costs; and operating costs, because, as I said, it is a high energy-intensive process, and the products have to be purified after they are made. As it is quite an energy-intensive process, the location of the plant and energy costs will have a huge impact on the process. We will also look at product post-treatment costs. If a product is created, you will obviously want to make sure that there is a

- market for it. Many issues will impact on our getting the product to market. Some are to do with legislation and waste management enforcement, so we will look at the cost and the long-term viability of the depolymerisation process.
637. We need to ensure that ELTs can be disposed of through authorised, certified disposal routes. Legislation should govern the operation of ELT transporters, sorters, storage facilities and process facilities because those will impact our security of supply. Legislation should recognise ELT-derived products as alternative energy sources or secondary raw materials with respect to criteria identified and certified through regulations. The right enforcement procedures must also be put in place to make sure that the legislation is respected.
638. Life-cycle analysis, which has become an integral part of many strategies on waste management, will be looked at in detail throughout the process because it is, as I said, a high energy-intensive process. We will, therefore, look at the total primary energy consumption, consumption of non-renewable sources, water consumption, emissions of greenhouse gases, and so forth.
639. During the DEPOTEC project, extensive work will be carried out on the life-cycle assessment of the depolymerisation of waste tyres. We will conduct comparative analyses of the depolymerisation option versus existing techniques. We will, all the time, double-check to make sure that the process makes sense economically and from a life-cycle analysis perspective.
640. As far as end market development is concerned, we will look at the extensive properties of black carbon, which offers products protection from UV light. It also increases thermal conductivity and protects against thermal degradation. So when we look at the markets for the product that we are creating, we will consider the properties of that product and the markets that we could get into with it. We will also look at the current supply chain for ELTs and at whether there is a demand for the existing products as well as for new ones to enter the market. Are there regulations that will allow the development of a proposed market for ELT-processing technology, infrastructure and market development? Is that market viable in the long term?
641. As far as product certification is concerned, we have already started working the European Tyre Recycling Association (ETRA). We are looking at the current technical specifications for end-of-life tyre products and are trying to understand the potential barriers in the existing policy and legislation and with entering new products into the market.
642. That is a summary of where we currently are with the DEPOTEC project. We started only in September, so we are just three months into the project.
643. **The Chairperson:** Thank you very much for your presentation. I forgot to say that I am Anna Lo, Chair of the Committee for the Environment. Obviously, it is a very new process. Congratulations for starting it. We very much need to explore new ways to help the industry that could make the recycling of tyres more viable. You mentioned costs, and obviously you want to prove that enough money can be made to make it economically viable. What are the environmental issues? Will it have a negative impact on the environment?
644. **Dr Bruton:** Our plan is that it will not have a negative impact on the environment. The process is done in the absence of oxygen, and there are plenty of existing published studies on depolymerisation process technologies. Some are positive and some are negative, and we are already engaged in trying to understand the legislation and the policy around emissions. Every step of the process will be evaluated, based not only on the existing policy and legislation but on what has happened previously. We really want to learn about the process technologies that have gone before us, but we do not want to add any negative impact. We will not be allowed to add any negative impact.

645. **Dr Eamon McKeogh (DEPOTEC Project):** It is worth noting that it is funded by an environmental programme, so among the key drivers for the research as funded by the EU are environmental issues and sustainability. The demonstration of that will be an important objective.
646. **The Chairperson:** When will you finish the project?
647. **Dr Bruton:** It is a three-year project. The first 12 months involve looking at the technology development and trying to understand that. As we said, 30 companies have tried this method previously in various forms, including pilots, and have failed.
648. **The Chairperson:** That has been all over the world.
649. **Dr McKeogh:** It is similar to any research project in that you start off by doing a literature review and a review of technology that has or has not worked properly. It requires a review of a whole range of technologies, and we have also decided that not only will we look at pyrolysis or the depolymerisation process but at other processes for comparative reasons. Technology will be sustainable in the long term only if it does not have any strong competition from elsewhere. We are looking at technology, financial viability and longer-term sustainability.
650. **Dr Bruton:** Published studies state that the technology has failed in the past because of the overall economics of the process. The technology itself has been developing over a long period.
651. **The Chairperson:** Obviously, there is a high infrastructural cost. A massive amount of heat is required for the process. Will the infrastructure be very costly?
652. **Dr Bruton:** It is a €4 million project, of which we are getting €1.6 million from the EU, but we will undertake extensive energy modelling on how to reduce our overall energy cost, which is one of the key factors associated with the cost. Much of the infrastructure, including the shredders, is already out there and can be bought. We will develop the furnace and the technology with our Polish partners. The costs are extensive, but through every step of the process, we will try to reduce them.
653. **The Chairperson:** Will the infrastructure be costly for the industry?
654. **Dr McKeogh:** The long-term objective is that this will not be a sink for funds but rather a source, so that a profit can be made through the use of the appropriate technology and the energy efficiency recovery systems that go with it. That is one of my key roles in the project. We will look at energy balances, at energy in/energy out and at the most cost-effective way to provide that energy.
655. **Mr Weir:** Thank you for your presentation. The layout of this room is like 'The Apprentice', but for a second, I thought that I had stumbled into 'Dragons' Den'. I hasten to add a disclaimer: I am not going to run for the presidency at any stage.
656. **Mr Dallat:** That is comforting. [Laughter.]
657. **Mr Weir:** Some people in the room are very relieved.
658. Although technology is improving, it has, broadly speaking, been out there for some time. From what you said, it seems that the barriers are trying to crack the issue of the economics that are tied in with the technology. You are at the very early stages, but do you have any thoughts about the broad economies of scale that would be required to make it work, or is that one of the areas that you will probe?
659. **Dr Bruton:** It is one of the areas that we are probing. We need to understand what our security of supply looks like and where our supply will be located. Even getting the material to the plant has an impact on the energy cost, so —
660. **Mr Weir:** It would also, presumably, involve the quantity of product that you are producing.
661. **Dr Bruton:** Exactly.
662. **Dr McKeogh:** Economy of scale is a key factor. That is where the sustainability

- issue comes in, because you need to know that you will get volume throughput for that scale. If there is any question about that, there is a question mark over the initial investment.
663. **Mr Weir:** Perhaps I did not pick you up clearly enough at the start. Obviously, you have the university-driven side of it. What input do people in the industry have to the process?
664. **Dr Bruton:** We are working with a mechanical engineering company called Erneside Engineering, which has been involved in renewable energy start-up facilities in the past. We will get a lot of its experience during the pilot phase.
665. **Mr Weir:** It is about marrying the industry with the university or academic side of it.
666. **Dr Bruton:** Exactly. We have a good balance between the industry and the academic side. We are looking for opportunities to talk to people and understand what other things will have an impact.
667. **Mr Weir:** Will you remind us of the project's timescale?
668. **Dr Bruton:** Our plan is that we will start the planning stage or the building of the pilot around the mid-point of the project. We are engaging with the environmental folks to try to understand what we need and what information they need so that we can start to put in place the pilot's planning processes. Our end goal is to demonstrate what the LIFE+ programme is all about.
669. **Mr Dallat:** What does pyrolysis mean? I hope that I got the pronunciation of that word right.
670. **Dr Bruton:** Pyrolysis?
671. **Mr Dallat:** It is something like that.
672. **Mr Hamilton:** It is like 'Countdown'.
673. **Mr Dallat:** What is the difference between that and depolymerisation?
674. **Dr Bruton:** In different places, pyrolysis and depolymerisation are used interchangeably. We are still looking at the technology and the specifics around it, so we are using depolymerisation. Our process is done with no oxygen — basically, with heat — to break down the tyre material to its constituent components. They can be used interchangeably; we use depolymerisation because we have not yet finalised the process.
675. **Dr McKeogh:** You could say that depolymerisation is a broader term that could include other methods of breaking down the rubber.
676. **Mr Dallat:** Other than heat?
677. **Dr McKeogh:** Yes. Pyrolysis fits into the category of depolymerisation, but depolymerisation is broader.
678. **Mr Dallat:** Is it really a spin-out company that you have set up? I am trying to marry the connection between academia and the world of manufacturing or whatever.
679. **Dr Bruton:** You get a 50% contribution from LIFE+, and you have to find a 50% contribution from industry. That is where the whole industry and academia marry up. The prototype facility is not a commercial one; it is just a demonstration facility.
680. **Mr Dallat:** The university is primarily to prepare students for the outside world.
681. **Dr McKeogh:** That is 50% of its remit. The other 50% is research.
682. **Mr Dallat:** I wanted to ask something else. It will come back to me, Chairperson.
683. **Mr Hamilton:** I want to pick up on Peter's point about volumes. If the technology works, and you find the right method, you are going to need huge volumes to do what you are doing. Given the infrastructure and its construction, do you envisage that there is enough capacity or security of supply in Ireland to do that? Can it be adjusted by the scale of the geographical area? You get into problems of shipping stuff —
684. **Dr Bruton:** The process can be scaled up. Right now, we are looking at the

- supply line in the Republic, but we are also looking at the entire supply line. It has a huge impact on the process; if we do not have a guaranteed supply line —
685. **Dr McKeogh:** That is a key question for the project. The cut-off point for economies of scale will be a very valuable piece of information to come out of the project. We can then get into a discussion about whether, say for a country the size of Ireland or for an all-island supply from Ireland, that would be a single plant or three or four plants. Those are the unanswered questions at this stage. That is where the full life-cycle analysis comes in, because tyres have to be transported from one location to another. All of that will be taken into account in that type of analysis.
686. **Mr Hamilton:** That is why I raised that point. There are certain obvious attractions in having one huge plant because that would cut down costs at one end but costs could be pushed up somewhere else.
687. **Dr Bruton:** Exactly.
688. **Mr Hamilton:** There is also the issue of environmental protection.
689. **Mr Kinahan:** You indicated that polymerisation is the route that you are looking at. Are there alternatives that you are not looking at? Presumably, you chose that route because you think that it is best for the environment and for paying for itself. Are there alternative methods that we need to keep an eye on?
690. **Dr Bruton:** There are various methods of depolymerisation that depend on the type of heat transfer or the type of furnace that is used. We are evaluating all those to figure out which one is best for us. Given the energy intensity of the process, we need to make sure that we optimise the process overall. During our life-cycle analysis, we will look at those options to ensure that the option that we pick makes sense. We also have to consider energy modelling.
691. **Mr Kinahan:** So there is not another glaringly different way to treat tyres that we need to be aware of that does not involve burning, roasting or —
692. **Dr McKeogh:** There are many other ways to treat tyres, but they are not glaringly different. However, we have to consider those as options and compare the overall performance according to the parameters that we have set for evaluation in the project.
693. **Mr Kinahan:** I can see the costs being high at one end, and the transport —
694. **Dr McKeogh:** There are no preconceived ideas. We have not gone down the depolymerisation or pyrolysis route because we feel that that is the best solution. We have to find out whether it is and show that it is, with hard facts. There is no bias here; we have an open mind.
695. **Mr Dallat:** I remember the question that I wanted to ask. Cadbury established a chocolate factory in Poland because it claimed that people's taste buds are the same. However, I cannot make the connection between tyres and Poland. Why a Polish partner?
696. **Dr Bruton:** We did some extensive investigations last year when we were looking at submitting our proposal. We were working with the European Tyre Recycling Association, and we came across our Polish partner, which had already been doing work in that area. It was already involved in the ETRA. I came across the company on the Web, and we met them.
697. **Mr Dallat:** There is no sinister reason for asking. That is a perfectly good explanation.
698. **The Chairperson:** Do the regulations state that you must have a partner from a member state?
699. **Dr Bruton:** Yes.
700. **The Chairperson:** It is also good for sharing knowledge and experience.
701. I want to ask Dr Kurz a question. Are you from the Environmental Protection Agency (EPA)?

702. **Dr Kurz:** Yes.
703. **The Chairperson:** We do not have such an agency yet. Hopefully, we will get one at some stage.
704. **Dr Kurz:** I am really here just to listen.
705. **The Chairperson:** OK. [Laughter.]
706. **Mr Hamilton:** Good answer.
707. **The Chairperson:** I will ask a question. If you can answer it, please go ahead and do so. If not, we understand.
708. **Mr Hamilton:** That is the problem with an environmental protection agency, Anna; it is not accountable to anyone.
709. **The Chairperson:** Good shot, Simon. We have difficulty defining end of waste — what is an end-of-waste product and what is still seen as waste. Recycling companies say that the bales of tyres that they export to other countries to use for energy or whatever should be seen as products. Do you have a definition or criteria for waste and end product that you tell industry?
710. **Dr Kurz:** The Environmental Protection Agency is, as far as I understand, the competent authority to make that decision. I believe that the office of climate, licensing and resource use takes decisions on end of waste. Decisions on whether a facility needs a waste permit, certificate of registration, a waste licence or nothing at all are made in accordance with article 11 of the Waste Management (Facility Permit and Registration) Regulations 2007. Does that make sense?
711. **The Chairperson:** Say that again. Right: if a facility produces crumbs, that is seen as a product. However, if it has tyres baled and sent out of the country for other countries to use as fuel, that is still regarded as waste not product? Is that correct?
712. **Dr Kurz:** That decision is taken by the Environmental Protection Agency on a case-by-case basis.
713. **The Chairperson:** Right. OK. That is probably even more confusing.
714. **Mr Conyngham:** May I add something? There is some definition in the legislation. I believe that, at present, there is actually an amendment on bales. The Government want to define literally how long something can be considered to be —
715. **The Chairperson:** A product.
716. **Mr Conyngham:** Yes. They want to define the X number of months that an item could sit on the ground if it is to be recycled. I believe that that is the proposed amendment. However, there are some fears on a Europe-wide basis. They do not want to give any legitimacy to a bale of tyres. They say that it is waste, full stop: you have just packaged it up into a square and have not really moved it on. The argument in favour is that there was a scenario in which — I believe that it is still used in some places — it was put in foundations for roads and building —
717. **The Chairperson:** Roads and bridges.
718. **Mr Conyngham:** That was an argument for allowing it to be there for a period of time. However, a mountain of baled tyres is hugely different to a mountain of tyres that are in a pile on the ground. I believe that that is the amendment that is proposed to the definition. Although there is some definition, you are correct; there is an interpretation at any point.
719. We talked about retreaded truck tyres. We regularly transport tyre carcasses that are not retreaded. We have never been stopped. However, there may come a day when somebody stops one of our trucks. We can prove quite easily with documentation that those carcasses are in the process of being retreaded. There are some grey areas in which we rely on a judgement being made at a certain point with the existing legislation.
720. **Mr Niall Murray (Tractamotors Ltd):** There are competing agencies. Under legislation in the Republic of Ireland, you are allowed to transport two tons of waste that is incidental to your business. In the case of someone who looks after a fleet of trucks and is, perhaps, transporting tyres that

were removed from the fleet at the trucking company's yard, the question is whether they are waste and you are allowed to carry them or whether they are a raw material that will subsequently be turned into remoulded tyres. That argument goes on all the time. Legislation has tried to cover the industry for the incidental transport of two tons of waste. Obviously, the waste industry says that it does not want tyre companies getting into the waste business without a licence and without the proper legislation to govern all their actions. There is still a huge argument to be made to the EPA, and we are still making the case to the EPA as to what constitutes tyre waste. It has not really been defined.

721. **The Chairperson:** That is similar to our situation up North.
722. **Dr Kurz:** I work in the waste data team. However, a section in the EPA, the office of climate, licensing and resource use in Wexford, routinely deals with that. It is not my area.
723. **The Chairperson:** I understand that. Sorry for putting you on the spot.
724. **Dr Kurz:** That is OK. That office has all the procedures, and they are the people to talk to.
725. **The Chairperson:** Thank you; we can find out from them. Thank you for attempting to answer. You did a good job.
726. Are there any other questions?
727. **Mr Kinahan:** My question relates to something that I asked Colm about previously when we discussed the effect of the border, North and South. I asked what effect the Scottish border had and what the UK is doing and how that relates to what we are trying to do with tyres. I felt that his answer should be recorded.
728. **Mr Conyngham:** If trucks can move — if anything can move — it is better to have a similar scenario for waste recording and waste disposal throughout the regions. In an ideal world, the entire UK, in my opinion, should have a similar system to ours in Southern Ireland. I know that some tyre companies and organisations in the UK have had that discussion. However, I am not part of that so I do not know their complete opinions. Nevertheless, we have put that point forward, and I know that they have considered the various options. That could then be extended from the UK to France.
729. **Mr Murray:** A good thing to remember, Colm, is that, from a manufacturing point of view, a lot of companies in the Republic of Ireland have regional headquarters in England. Therefore, any of the people dealing with companies in the UK would be dealing with the same people.
730. **Mr Kinahan:** So they should be able to —
731. **Mr Murray:** The Irish Tyre Industry Association meets the corresponding associations in England at least once or twice a year. We are a kind of family. Colm, like me, goes back and forth to England to meet the various people whom we represent. They have exactly the same problem over there. It is a self-regulating system. As the news reports on cowboy warehouses filled with tyres and fields being abandoned to tyres, it brings the whole waste tyre issue to the fore. It is obviously a challenge to the industry as to how it will fulfil —
732. **Mr Conyngham:** Does the Scottish Parliament have control over the issue?
733. **Mr Hamilton:** I imagine it must.
734. **The Chairperson:** Yes.
735. **Mr Conyngham:** It would certainly be a starting point. It is geographically easier to get there by ferry.
736. **The Chairperson:** However, it is more likely that people in the North would go fly-tipping to Donegal — across the border to the other side — or vice versa.
737. **Mr Conyngham:** In an ideal world, it would be good to have the same system across boundaries.
738. **Mr Kinahan:** They have it in Scotland.

739. **The Chairperson:** Dumping in Scotland does not happen that often. It is very expensive.
740. **Mr Weir:** Deposited waste normally goes in the opposite direction. Work is ongoing to try to deal with that.
741. **Mr Conyngham:** I thank the Northern Ireland Assembly for bringing this to our attention. It is marvellous to hear that it is happening in Ireland. From the point of view of the type companies, the barrier over the years has been the economic side and the price of the commodity. However, in your favour — you are probably aware of this — the price of the commodities has risen steadily over the past two or three years. That is certainly bringing it to a point at which waste tyres could become a commodity and have real value. That could solve all our problems overnight. That will ultimately reduce, and almost remove, any need for the policing of tyres because they will have an intrinsic value. It is quite possible that that will happen in the not-too-distant future, because of the way in which commodity prices are going around the world and with there being a finite amount of oil. I see a good future for that if you can solve this problem.
742. With regard to the economics of undertaking the operation in Ireland, you will be hampered by the amount of tyres that you can feed in. However, it should be possible on the island of Ireland to have one plant at least, if not a couple of competing plants. The real opportunity for commercial exploitation would be to license that technology globally; if someone came up with technology that no one else had, licensed it globally and had those plants at various points around the world, it would be a huge opportunity. For that to come from this part of the world would be marvellous.
743. **The Chairperson:** You said that other countries had tried it. Do they have a patent? Are you just going to refine it, or are you going to do something totally new?
744. **Dr Bruton:** Our Polish partner is developing the process for the DEPOTEC project with our input. The hope is that we will patent our own technology.
745. **Dr McKeogh:** There is no doubt that IP will be derived from the project. The scope for IP development is there.
746. **The Chairperson:** I am sorry — what is “IP”?
747. **Dr McKeogh:** Intellectual property: it has been high on the agenda in the initial part of the project. There has been discussion among the partners about who gets a share of the IP. Patents should emerge. There is some background IP, and IP will develop as the project progresses.
748. As you say, you could enter into licensing arrangements internationally. The world really is the market for this if you can prove that something works at a reasonable scale. We will do a pilot scale, which is in the order of 500 to 1,000 tons a year. There is then the next step up, at which it is tested in our economic modelling systems to show the appropriate scale at which to operate as well as the margins and the profitability. That is what I hope we get from it.
749. **The Chairperson:** There are so many countries that can adopt it. Even in China, there are so many more cars, and therefore tyres, than there were 10 years ago.
750. **Dr McKeogh:** There is the whole question of environmental legislation, implementation and enforcement. The technology, such as pyrolysis and rotary kiln technology, is relatively old and goes back to the 1970s. That technology has been operated without any due regard for the environment, so there are serious environmental issues associated with it. It is about the whole clean-up operation when it comes to the refinement of the technology, and energy recovery, so that you are looking at the complete balance, the overall energy balance, emissions, and so forth. That will be a very important aspect.

751. **The Chairperson:** That will be a new aspect.
752. **Dr McKeogh:** The implementation will be Europe-wide initially, which means that there will not be the same problems with permits, and so forth. If you have specified what the end products will be, you have specified the whole process, and full documentation of the entire process has been created. That is the essence.
753. **The Chairperson:** The best of luck with the research. We look forward to hearing about great success from it.
754. **Dr McKeogh:** May I ask why you invited us to join your meeting? I know that you are interested. Have you any specific plan to follow a line of research in this area because we would be very interested in collaborating with any programme that you have?
755. **The Chairperson:** We are the Committee for the Environment of the Northern Ireland Assembly. We are conducting an inquiry into the disposal of used tyres. We have some two million new tyres coming in and old tyres being disposed of. At the moment, we do not really have a system to record how they are disposed of and who is doing what. Obviously, there is also illegal dumping, with people hiring barns and just leaving thousands of tyres and walking away or fly-tipping into bogs and burying them, which incurs huge costs for local councils or farmers to dispose of them. There is also a huge environmental impact on the fields. We are looking into mapping it out and making recommendations on how the Department of the Environment should address the problem. We hope to produce a report by March 2012.
756. **Mr Dallat:** I enthusiastically supported the plan because I believed that we were visiting Cork, which is a beautiful city. [Laughter.]
757. **Mr Weir:** Perhaps there will be enough for Hansard to record.
758. **The Chairperson:** We are very interested in looking at new ways to dispose of this waste. We should not call it waste if it is going to be of great use as a resource.
759. **Dr McKeogh:** It is a resource.
760. **The Chairperson:** Yes, it is a resource.
761. **Dr McKeogh:** If you change the mindset.
762. **The Chairperson:** As Colm said, if it is going to be profitable, it will be another industry helping the economy and creating jobs. More and more people will then want to dispose of tyres legitimately rather than illegally.
763. **Dr McKeogh:** Although we have a technology focus, we also have a business focus. So one has to look at the complete picture, which includes the supply line. That is where your concerns are relevant, and we would welcome any information that you have and which you think would be interesting for us. We hope that we keep up the communication.
764. **The Chairperson:** Equally, we would be very interested to hear of progress in your project.
765. **Dr McKeogh:** Perhaps we will invite you to Cork. [Laughter.]
766. **The Chairperson:** Thank you very much for coming all the way from Cork to meet us. We would love to have gone down to see your project site. We could come down when you have made further progress. Thank you very much.

8 December 2011

Members present for all or part of the proceedings:

Ms Anna Lo (Chairperson)
 Mr Simon Hamilton (Deputy Chairperson)
 Mr John Dallat
 Mr Danny Kinahan
 Mr Peter Weir

Witnesses:

Mr Pat Kierans	Tyre Recovery
Mr Fiacra Quinn	Activity Compliance
	Scheme
Mr Colm Conyngham	Bridgestone Ireland
	Ltd
Mr Niall Murray	Tractamotors Ltd

- 767. **The Chairperson:** Good morning, everyone. Thank you very much for coming to the meeting. We had a very enjoyable train journey from Belfast down to Dublin.
- 768. As you are aware, we are carrying out an inquiry into the disposal of used tyres in the North. The Department is also looking into that and is producing an action plan. However, we are conducting an independent inquiry.
- 769. Our problem is probably worse than yours. I see that the Tyre Recovery Activity Compliance Scheme (TRACS) is, at least, making some headway in trying to monitor this and has a voluntary code and membership. We have nothing like that. We are very interested to hear about the project. I have read your annual report, which sounded very good. The Bridgestone project is very interesting too.
- 770. Perhaps you could give us a briefing, for maybe 15 minutes or so, and then members will, I am sure, have questions. Thank you, gentlemen.
- 771. **Mr Fiacra Quinn (Tyre Recovery Activity Compliance Scheme):** You have seen our report. It describes the voluntary arrangements that we have. We have mandatory legislation, which suppliers

of tyres, at any particular point in the supply chain, have to comply with. However, it is voluntary, in the sense that suppliers do not have to join TRACS, they could join the local authority. It is self-compliance, equivalent to packaging or something like that. The voluntary approach and TRACS were set up to reconcile the movement of tyres from the point of import to the point of disposal and treatment. If you look at it as a single system, and follow a unit through that system, you will see that, on a one-for-one replacement on a vehicle, that is how it happens. If 1,000 tyres are imported, and if the retailer says he got only 500 and the waste collector says he collected only 200, we are able to show that a point of audit is already there. You can see that that is where the reconciliation exercise occurs. Of course, that can be backed up with local authority enforcement to ensure retailers are using proper collectors and collectors doing what they are supposed to do under the conditions of their collection or facility permit; it is either/or, or one of both. We also deal with some collectors in the North that collect in the Republic.

- 772. TRACS is a success in that 90% to 95% of units imported are accounted for. In the report, you will see that the Central Statistics Office (CSO) statistics do not show that, but we know and the CSO knows that revisions are to be carried out thereafter. CSO is very helpful with its figures and with revisions. If there are slightly too many, it knows that it has counted slightly too many, but the revisions are slow to come through. We know by looking at the number of importers in the country together with our membership — we have included that in a table — that we have captured most of those. It looks like we are capturing only 52% of the retailer movements, again because of the CSO figures and because our baseline is too high, but we know it is not that; it is

- 65% to 75%. By and large, we account for over three quarters, at least, on the waste collection side, if not up to 80%. That is where the success of the system is.
773. We do an audit by looking at importers, retailers and waste collectors who are members of TRACS. We can see what is happening and where the movement is within those points. If our system shows that somebody is not reporting correctly, the system spits out a name and address and that leads to an automatic audit. That is what we do. We are a little bit stymied at the moment with the approval of a second scheme, which has started only very recently and probably is not up to speed or experienced enough yet to do that.
774. There will be a review of all waste streams that have a producer responsibility initiative (PRI) around them. That will include TRACS. We are not a full PRI, in the sense that we do everything except dictate what waste collectors do or hold money against what they do. You could contrast that with Valpak in the UK or WEEE Ireland, which subsidise the waste collectors and tell them what to do based on PRI ends on the packaging side or subsidisation on the collection side. We are not that. We left it to the free market to decide where they are at, because collection of tyres in an urban area will not be the same as collection of tyres in a rural area.
775. The free market was, probably, working well until we hit the brick wall of economic crisis. A number of activities stopped for waste collectors. To an extent, their outlets disappeared, and they ended up stockpiling. Stockpiling has become an all-Ireland problem. You will have seen that yourselves. Of course, stockpiling of tyres leads either to enforcement or a fire — one or the other. That is what tends to happen.
776. We think that stockpiles are being reduced. Nobody is doing that at present. However, we still think that for waste collectors to gain a market share, they are probably offering a price that is below what it takes to treat a tyre. At present, we cannot influence that.
- However, we can track them and say what happens to waste tyres and where they are sent. That is pretty much it. That is how we operate at present.
777. I am not here to speak on behalf of the Department of the Environment, Community and Local Government or anything like that. In the review, the Department may take the opinion that a full PRI, in which the compliance scheme handles the money and appoints waste collectors, is the preferable way to proceed. In that instance, it would be not competitive as such, because in any model like that, there would not be a free market for, let us say, 30 or 13 waste collectors. Four would be appointed, and that would be it. The rest would go out of business. That may or may not work. It is probably the industry's view that it would not work if, at the very least, similar approaches were not taken on both sides of the border. Under full PRI, it may look as though new tyres would be cheap if they came from the North to be sold in the South. In much the same way as with farm film — if you want to put it that way — there is no tax on that. However, concomitantly, the waste goes back in that direction. You are probably finding that problem; waste flows back to the North because nobody will pay for it.
778. **Mr Colm Conyngham (Bridgestone Ireland Ltd):** I would like to make a few points. With regard to economic operators, Fiacra mentioned that we have not been able to involve all retailers. Our opinion is that we want to deal with as many tyres as possible. That has been our goal. We are at a high level in dealing with tyres. There has been a problem with the Department of the Environment in Southern Ireland asking us to involve a high percentage of economic operators. What you have to realise is that an awful lot of retailers have a sign over the door saying that they deal with tyres. There may not even be a sign. For example, many motor dealers now say that they will get or fit tyres. In some cases, a car is driven to a tyre dealer to have its tyres fitted. Therefore, there are an awful lot of

- additional economic operators for whom tyres comprise a very small portion of their business. We have some difficulty in getting some of those people to come into the fold, so to speak. Would that be fair to say, Fiacra?
779. **Mr Quinn:** Absolutely. For example, we have a list of around 1,500 economic operators that would deal with one tyre or tens of thousands of tyres. Garages account for around 360 of those operators. Half of those are in TRACS. To be honest, we have them on the list because they may deal with tyres. However, that is not their business. It comes back to the old 80:20 rule. Some economic operators deal with tyres. However, 80% say that they deal with tyres, but they do not really.
780. **Mr Pat Kierans (Tyre Recovery Activity Compliance Scheme):** Since March 2011, we have brought many more garages into the circuit. I joined TRACS in March. My background is the retail motor trade. Therefore, I knew who to look for among those people. We have brought many people in since then. Even if a guy does mechanical work and he sells 20 tyres, he still needs to join us. It is a matter of educating people about the fact that they have to join. It is working.
781. **Mr Niall Murray (Tractamotors Ltd):** The point is that, in the South, we have the Society of the Irish Motor Industry (SIMI), which is a robust association for motor dealers. The tyre industry itself is an associate member of that organisation. It is willing to co-operate with us going forward. Alan Nolan is the chief executive. He is very much on our side in helping us to deal with SIMI members. In the first instance, the challenge for the industry was to try to paint with a broad brush and bring major operators into the net. Now that they are in there, we can start to look for the 5% and 10% that are represented by the smaller economic operators and bring them into the net.
782. In the next two years, I think that you will see some sort of initiative being put in place between the Irish Tyre Industry Association (ITIA), the SIMI and TRACS to bulk register members. The waste electrical and electronic equipment (WEEE) compliance scheme has already done that. Its members were bulk registered, thereby taking all of that paperwork out of the system. The smaller operators then felt that they were not being put upon by yet more bureaucracy. They were automatic members of the compliance scheme, and as such, all they had to do then was to get rid of the actual tyre through a recognised collector.
783. **Mr Conyngham:** A typical motor dealership might have batteries, exhausts, tyres and even waste cars themselves, so managing that waste can be quite difficult and tricky.
784. **Mr Murray:** From my experience of growing up in the industry, I know that, in the good old days, if you had an oily rag, you threw it in the general waste stream. If we did that now — we have one tyre shop, but we are generally a distributor — our waste collector would be on to us to say that there were some filters in the last skip that we sent to them. They want that taken out of the waste stream completely and properly disposed of, and they would supply us with the proper tools to do so. So, I think that you will see far more proper waste streams being provided for the waste generated by a typical garage or tyre shop.
785. **Mr Conyngham:** The other point is about enforcement. We understand the difficulties that local authorities face. However, we feel that their enforcement really needs to be stronger than it is at present. We have continually made that point to the Environment Department here. Who would put money in a meter for a parking disk if there were no enforcement of it? Would anybody do so? I think that very few would. That is the reality of the world. So, at the end of the day, a self-regulating system still needs to have some enforcement. When the problem goes way down stream, Fiacra and TRACS police it as much as they can. In one county, there may be two environmental waste officers who have to police a whole raft of different

areas, so the chances of their finding a small operation at the back of a farmyard or something like that are very slim. They do not have spotter planes. It is really just a guy going round in a van looking for all kinds of waste, and he has all kinds of targets to meet. So, tyres do not seem to be high on the list of priorities. However, it is encouraging that there have been some prosecutions recently, and we try to highlight those as best we can.

786. **Mr Quinn:** There were some prosecutions in Kilkenny and Mayo.
787. **Mr Kierans:** Small fines.
788. **Mr Quinn:** There were small fines and things like that. I think that the local authorities are very put upon at this time. They have a budget and perhaps 20 regulations to enforce, but they can really only enforce the top five, depending on what the priority is for that quarter and what they are doing.
789. It has also been made a little bit more difficult for local authorities because of the historical use of tyres on farms.
790. **Mr Murray:** For silage pits.
791. **Mr Quinn:** Yes. The tyres are put on top of silage pits to weigh them down. There is an allowance for farms, because of the historical background with farmers here.
792. **Mr Murray:** There is a strong lobby as well.
793. **Mr Quinn:** Yes, from the lobby interests.
794. **Mr Murray:** It is a political reality.
795. **The Chairperson:** It is the same up North.
796. **Mr Murray:** You have to accept that that is a political reality.
797. **Mr Quinn:** We think that there are good guys in the Irish Farmers' Association (IFA). They originally sat on the board of TRACS and were involved in discussions. TRACS thinks that that is really unsustainable and that farmers should move towards modern practices of using wraps, sheets and different types of mats. At a certain time of the season, farmers will not approach the waste collector, although they are entitled to,

but will instead go directly to retailers and ask them to take the tyres. We can find out whether they have done so from our audits. That is the current practice, and if we are doing audits, it is fine, but we need a little more enforcement behind that. It is very difficult for local authorities. When we provide a list to them, as we do every month, we say, "These are members, and these ones are not. These guys are not really practising good waste management, but these guys are". There are a lot of people to visit, and they have a lot of other things to do. Scrapyards are a priority. You may have seen on the news that there were helicopters in the air over Cork identifying scrapyards. That is the way they do it. It is a large county, and they were quite successful in closing those places down. That is high-profile waste, whereas tyres are probably not as high profile, especially where there is some accountability in the supply chain.

798. **Mr Murray:** TRACS shares an initiative with the industry in which we maintain a very robust list of economic operators. We try to review that on an annual basis. We get all the major players in the industry to tell us about the economic operators that they know are operating in each county. That list is provided to TRACS, which issues an identifier to those operators; it is like a social security number that remains with them. We can track each one of those businesses if they are remotely involved in tyres.
799. TRACS gives the local authority a monthly list of the economic operators and tells the authority whether those operators are in TRACS or not. At least, when the enforcement officer decides that he is going to get around to tyres, he has a list of people in his county whom he can audit if he so wishes in order to see who is compliant or not. TRACS is telling local authorities, from a starting point, who is in our scheme.
800. **Mr Kierans:** It is a very difficult job to do. As Colm said, we can find the small operators. That is our job, and we are very successful at it. I know where they

are because I have been in the business for 26 years. The problem for us is that, when we find the people and give the local authorities the information, the way in which they deal with that information is very poor. We are getting the information for them, but it is frustrating.

801. We find a lot of people. I write to them all; once we find them, they go on our system straight away and a letter goes out instantly. A lot of people think that we are connected with the Government. Some people will join the scheme, but others will wait until they get a fine or a letter or they end up in court. It is very frustrating, but we will keep going, because we are making good strides.
802. **The Chairperson:** Enforcement is a big problem for Department of the Environment (DOE) in the North, be it for waste management, tyre disposal or taxis and buses. Thank you very much. The scheme was set up in 2008 or 2009?
803. **Mr Quinn:** We started operations in 2008.
804. **The Chairperson:** The extent of your success is remarkable, given that the scheme was set up only a few years ago. How was it first set up? You said that TRACS is a non-profit-making organisation and a limited company.
805. **Mr Murray:** I can give you a little bit of insight from the industry's point of view, because I was on the NEC of the Irish Tyre Industry Association at the time. The then Department of the Environment, Heritage and Local Government pointed out to us that we had a social responsibility for the waste that we were creating. In the Department's estimation there was a very big gap between the amount of tyres that were coming into the country and the number that it could satisfy itself were being destroyed correctly.
806. The Department told us that it was going to develop legislation to back up its enforcement operations. We met Greenstreets, a company that Fiacra is involved with, and asked it to design a compliance scheme for the industry in consultation with the Department. As a result, the Department issued the set of regulations under which we currently operate. They are a subset of the Waste Management Act 1996. We have very defined legal obligations under those regulations that govern how we, as businesses, are responsible for dealing with waste and the recording of it.
807. The good thing is that, because the scheme was set up by the industry, there is a lot of co-operation between the two organisations. When we meet the Environment Department, we go together, so that the industry is represented on one side and the self-compliance scheme is represented on the other. It takes a lot of the "he said, she said" out of the discussions. When all the parties are around the table, you can get an exact read of how the scheme is operating. We started in 2006 —
808. **Mr Quinn:** Yes; around 2006.
809. **Mr Murray:** and we launched the scheme in 2008.
810. **Mr Quinn:** Yes; it was incorporated in 2005, so, it was out there already.
811. **Mr Murray:** You put in quarterly returns to the Department of the Environment.
812. **Mr Quinn:** Yes, we do quarterly returns. We ask all the suppliers to submit quarterly returns on their activities to us, which they do. We then issue an annual report to the Minister at the Department of the Environment. We issue a monthly report to the local authorities, but we do not include statistics. It is more along the lines of a list of names and addresses for them to act upon within their functional areas. All the reports that go to the Minister are in aggregate, so no one company is identified. We have an IT system in place whereby people can make secure returns, so I do not get to see the figures; Pat does not see the figures —
813. **Mr Murray:** That is important from an industry point of view, as you can imagine. If I was on that list with my competitor, and I felt that he was getting my entire distribution list, I would have

- a problem with that being on the public record. Fiacra went to a lot of trouble with TRACS to convince the industry that he had a bullet-proof security system.
814. We report to him electronically on a quarterly basis, and the information that comes out of his system is aggregated so that neither the brand nor the company that give him the information can be identified. It is very secure in a small industry, where a number of players would be very interested in the economic information of any of their competitors. Its security was a great way of being able to sell it to major manufacturers, because, obviously, a company such as Bridgestone would have a significant interest in making sure that its economic information was secure. That has never been breached, and we have had somebody test it.
815. **Mr Quinn:** We have an outside contractor who built it, and we have it tested yearly. The IT manager does not see the figures. If Colm sells 10,000 tyres to a retailer and that retailer lies, the system gives us the name and address, and it will indicate that it cannot verify that that is the truth because the figures do not match. However, the system does that. We do not do it manually or anything like that. That is how it works; it points out the oddities.
816. **Mr Conyngham:** There is also a UK software firm, TEAM Systems Ltd, which has around 100 point-of-sales in smaller tyre retailers. We managed to get it to develop a software module for the accounting system used by a small tyre retailer, so it makes their reports to Fiacra. I think that a few others have come in and made software, but we have had good co-operation. A lot of dealers were worried about how they would get the time to start adding up how many tyres they send, and they were afraid that that would mean more paperwork and administration. With the TEAM Systems software, it is easy for the tyre retailer to work it out.
817. **Mr Quinn:** Once it is in place, it is fine. The first time, there is a little bit of work needed and a bit of hand-holding, but it automatically goes through the second time.
818. **Mr Murray:** As a wholesaler, we provide smaller customers with a list of everything they buy from us. If they are buying from five or six wholesalers, they can get the information from the five or six wholesalers, aggregate it themselves and give it to Fiacra on paper, if they wish. We have agreed with TRACS that we will give the information in a timely manner to the smaller dealer any time they want it. Again, if you have a decent IT system, that is pretty easy to do.
819. **Mr Conyngham:** Some of our customers said that they wanted to join TRACS and were happy to pay the money but wondered how in the name of God they could figure out how many tyres they had, because they may not be good at that part. However, in fairness, in any business, you should do that, and we help some of them —
820. **Mr Quinn:** We have sent people out to help to get them set up physically on the ground as well. Most people have a financial system anyway, and it is tied into that.
821. **Mr Conyngham:** So, it is just interrogation. Any help you can give them improves compliance.
822. **The Chairperson:** Rather than putting barriers up.
823. **Mr Conyngham:** There are those who want to comply, but, perhaps as a result of their work, they get caught up in other things. The other group that do not want to comply are a smaller group, and we should help them.
824. **Mr Kierans:** They are worried about the information.
825. **Mr Quinn:** Like you, we have waste collection firms and waste facilities firms. Some companies have both. They automatically report to the Environmental Protection Agency (EPA) through their commissioned data returns. There is no problem with them, because they can report by units — they can charge by units — or they can report

- by weight, and it makes no difference. We made it easy for everyone, including companies that had a problem with weight.
826. **Mr Murray:** There is one weakness in the system in that it is too easy for waste collectors to check the box that says that they will collect waste tyres. From an industry point of view, we have asked some of the bigger collectors to allow themselves to be audited by TRACS, so that we can follow the trail. One of the things that the Department wanted to do was to make us responsible for the tyres from the cradle to the grave. In order to do that, we must be able to audit the collectors to see what they do with the tyres.
827. One of the frustrations is that it is quite easy for waste collectors to check the box to say that they are collecting tyres. If there are 120 companies collecting tyres in the South of Ireland, it is much more difficult to audit them. As an industry, we would like to see the number of collectors with a specific permit to collect tyres reduced. That would bring in an anti-competitive dimension. For every positive there is a negative. However, we would like the waste stream to go to a smaller number of waste collectors.
828. **Mr Conyngham:** As you move towards recycling 100% of tyres, you will be presented with a number of obstacles. To make a product from tyres — my company and other major companies are investigating that — there is a cost, as there is for any recycling. One very good example of best practice is Crumb Rubber Ireland Ltd. You may have time to look at its website or to visit it. It is based in County Louth, and it is retailing products in, I think, B&Q, but certainly in Woodie's DIY and some of the other retailers in the South and in Northern Ireland. It has, if you like, gone the full distance to recycle tyres and sell a product, but it has had to make major investments in its plant and factory to do that. It charges to collect the tyres, because it has not yet reached the stage where selling the product pays for all the costs. However, it is competing with companies that have been given waste collection licences by county councils. Those companies may be going the minimum distance, they barely comply with the law and they do not make any products. After all, tyres can be exported to —
829. **Mr Murray:** South Africa.
830. **Mr Conyngham:** Yes. They can also be exported to Third World countries and to anywhere else on the planet. By doing that, those companies are not doing anything wrong, but we would like to see an increase in the amount of tyres that are made into products. That is more environmentally friendly, and there is a cost to flying or shipping something to the other side of the world. Making products will also create employment if people are making them locally and exporting them, and that will add value. That would be at the top level.
831. We have come a long way from perhaps 15 years ago, when tyres were simply buried in the ground. The level of burials has fallen dramatically, as has the number of tyres that go on top of silage pits, although farmers would argue that that is recycling of a kind.
832. **Mr Murray:** It is reusing.
833. **Mr Conyngham:** Yes. There is some value in that, but it is still at a very low level. As you go up the recycling steps, cement kilns are being used to burn tyres for energy recovery, and I think that Lafarge Cement in Northern Ireland conducted an exercise in that area. At least some energy is made from the tyres in that way, and it is better than them going into the ground. However, it is not as good as those tyres being used to make products.
834. Equestrian centres are another big user of old tyres. They mix them with other things to make the ground springier for the horses. However, there comes a point when that must be scraped up and disposed of. Again, that is better than burying the tyres in the ground, but it is not as good as recycling them.

835. Bridgestone has looked at the steps that are involved in recycling. Internationally, we are looking at different products that can be made from tyres. In Ireland, we have a very good example, Crumb Rubber, which, over the past decade, has made a very strong effort to go the distance, and has succeeded in doing so but has found it difficult. Looking at your situation: if we have 120 collectors pushing prices down in order to get the tyres, get the money for the tyres, and dispose of them in the easiest way, then, if we want to see tyre recycling, that is where we can get improvements. Fiacra has been successful in tracking tyres right to the graveyard, as we say. After that, some of them go on boats. We do not follow them to the ends of the earth.
836. **Mr Murray:** We are stuck at the graveyard, basically.
837. **Mr Conyngham:** Tyres can head off on a boat quite legitimately. Some of the people that Fiacra has looked at have provided legitimate reasons; for instance, tyres could be heading to a cement kiln on the other side of the world.
838. **Mr Quinn:** We have audited most major collectors, not just on collection, but on what they do with tyres, as Colm and Niall have said. Even if collectors crumb the tyres, we ask them what they then do and where the product goes? I presume that you will have questions for the EPA on the end-of-waste criteria for tyres; and what point it gets to and what decision is made. We also have questions, and we will work through them. When looking at someone who may crumb tyres for export, you would still consider that as waste and wonder what happens to it. If tyres are baled, there are certain criteria for saying that a bale of tyres is an engineering product; but is it exported as a bale, and where does it go? We ask companies for the names, addresses and phone numbers, on transfer-to-shipment notes, of where the waste is going. They should have such notes on site, and that is what we see on audit. Presumably, the industry has its own points about reuse abroad in countries where that is legitimate. We do not have an opinion on that, but we do want to know where the waste is going. If tyres are being exported for use further on, we want to see the transfer-to-shipment notes.
839. **The Chairperson:** We visited a recycling company in the North and were told that they ship a lot of baled tyres to South Korea, but it is not seen as a product, it is seen as waste.
840. **Mr Quinn:** Yes, that is the difficulty. I know that the EPA has draft criteria for bales in certain instances, but those are hard to work through because you cannot really barcode a bale and say that it has been used within three months, or something like that.
841. **Mr Weir:** Thank you for your presentation. You mentioned tyres moving from cradle to grave. I have a brief vision of tyre heaven, but maybe towards the end we could move into tyre Buddhism, and reincarnation.
842. These might be reasonably basic questions. However, whatever model we are looking at, either through the Department or through the Committee report, we are looking at the end game for Northern Ireland. The economic model is important. As regards the overall cost of your scheme, does funding come purely through central government?
843. **Mr Quinn:** At the moment, we charge 10 cents per unit. The economics are very simple. There may be two million tyres at 10 cents each, which is paid by the importer. There is no funding from government or anything like that.
844. **Mr Weir:** So, the scheme is self-funding?
845. **Mr Quinn:** Yes. It is a not-for-profit business, so the entire funding has to —
846. **Mr Weir:** What is the annual budget?
847. **Mr Quinn:** It is about €200,000.
848. **Mr Weir:** A key issue is that you could have the best scheme in the world but could damage your scheme's effectiveness if you have not copper-fastened enforcement. As you indicated,

- enforcement in the Republic is carried out at local authority level. The issue is therefore about prioritising and financing that work. Is it left to local authorities to finance enforcement from their own budgets, or do they get grants or support from government?
849. **Mr Quinn:** There is a central grant, or fund, within government. Essentially, in that respect, public money funds enforcement. But, taking a step back; it is important for you to see that, if you decided that you did not like the current model and went for a Waste Electrical and Electronic Equipment (WEEE) Ireland or European Recycling Platform (ERP) type of model, the compliance scheme would control the money and therefore the waste collectors. You would not need enforcement because you would have done away with them.
850. **Mr Weir:** I appreciate the extent of your audit trail, which at least ticks the boxes as far as the number of tyres is concerned. What about the traceability of individual tyres? Do you feel that that is just too difficult?
851. **Mr Quinn:** Yes. It is too difficult. I do not think that that would work.
852. **Mr Murray:** We have no way of identifying individual tyres. There is a DOT number on a tyre, but that is sometimes reused. There is no marking, such as a serial number, on a tyre.
853. **The Chairperson:** Why can that not be done? Why can you not have a serial number?
854. **Mr Murray:** The next time you get the opportunity to look at the side of a tyre, you will see the amount of information that is now required. One would almost need a Kindle to read it all. From the wholesale and handling point of view, we would love to come up with some way of having a barcode on a tyre that would allow us to account for it going in or out of premises. That would make accountability stronger.
855. **Mr Conyngham:** There is barcoding on the label, but the label is, obviously, removed when the tyre is put into service.
856. **Mr Murray:** If you visit any warehouse around the country, you will see that one of the housekeeping tasks every day involves picking up the labels that have come off tyres.
857. **Mr Conyngham:** Nobody has come up with a glue that is strong enough to keep the labels on but not too strong to stop them being taken off. There is a lot of information on the side of a tyre. So, you can figure out things such as when and where it was manufactured and an awful lot about the engineering side. Manufacturers have not yet put something on a tyre for the duration of its life that would attach it to whoever is distributing it at a particular point. We do not have that at the moment.
858. **Mr Murray:** It also needs to be automatic. Reading black on black is very difficult. So, there will have to be something such as a chip that will give you a radio signal that will enable you to collect the information electronically. The average cost of a 40 ft trailer of tyres is €40,000 or £32,000. There are 1,200 tyres in a 40 ft trailer; so, you can imagine that two million tyres coming into the country would involve an awful lot of reading. Therefore, unless you can capture the information electronically, you will not have a prayer of capturing it.
859. **Mr Kinahan:** I know that the trade produces a gauge that tells you about tyre wear. Is someone looking at that technology in case something can be developed from that? I think that it tells you when the tyre is worn and when you need to change it.
860. **Mr Conyngham:** Our company is looking at that. At the moment, tyre-wear indicators have become the subject of European law. Funnily enough, that is coming from the fuel side of the industry, and it means that people are not driving around on half-inflated tyres, which use an awful lot of extra fuel. A lot of our technology is concerned with looking into the future. Whether something will come about will do so more through economic influence than practical application, because sometimes you cannot get anyone to pay

- for new technology. Motor companies will pay only a certain price for a tyre. It is not something we will see in the near future. Dashboard technology devices and tyre pressure monitoring systems will improve, but I do not think that there will be anything in the actual tyres any time soon.
861. **Mr Murray:** According to current legislation in Europe, by 2012 every tyre will have a label that will tell you about wet breaking, sound and rolling resistance: rolling resistance has a direct effect on the amount of fuel that you use. So, it will be just like when you buy a refrigerator and see the A, B, C, D, E, F label. The label will have to be on the tyre. However, they have not yet figured out how we will show that label to the consumer.
862. As you can imagine, when someone drives into a tyre shop, the car goes up on the lift and four tyres are put on. From the point of view of insurance, you do not want your customers standing in the garage and watching that being done, because there are lifts and trailing wires, etc. Most good tyre shops pull the label off a tyre before it is delivered to the customer. The legislation states that we must show that label to the customer, although it has yet to be decided whether there will be an electronic version of the label or whether the actual label will be stuck on to the invoice. That point is still being argued.
863. **Mr Conyngham:** You must show it online and at the point of sale, but "point of sale" has to be debated.
864. **Mr Murray:** When a tyre is fitted on a car, the decision about that tyre has already been made. Unless someone comes up with a way of showing the label to customers when they are making the decision to buy, they will not be making their decisions based on information: it would be a case of the label being shown to them in order to tick a box.
865. **Mr Conyngham:** It is worth pointing out that, at the moment, when consumers go in to get four new tyres, they are typically charged about €1·50 for disposal. A disposal charge is set by the retailer. Some charge €50, which includes everything, and others take the Ryanair approach and charge €47, plus a charge for this and that.
866. **Mr Weir:** Those tyres are likely to land in a different county. [Laughter.]
867. **Mr Conyngham:** Yes. It is up to them. The reality is that they collect money. I have found that there is a very positive reaction from consumers when they are told where the tyre goes. Some do not need to know and are interested only in the price. However, some dealers take the trouble to say that they send their tyres to Crumb Rubber, which makes mats from them. Sometimes, we underestimate how much people care about the environment. There have been retail successes because businesses have gone to the trouble of telling people things such as: "The chicken had a good life". People will then pay extra money for the chicken. The tyre industry is becoming more aware of this, but we need to communicate more with people. It will give retailers an incentive to make sure that they comply with Fiacra and ensure that their tyres are going somewhere. They will not want to be found to be dealers who are not doing that and are being compared to those who fire them over the back wall.
868. **The Chairperson:** I changed two tyres last week, and I asked them for an audit trail. They charged me so much that I thought that I had better ask them.
869. **Mr Conyngham:** I genuinely think that it is in all our interests in the tyre business that we point that out to people and encourage them. The guy who makes the genuine effort to recycle can charge a little bit extra because the retailer can charge a little bit extra for that. All of these things are going in the right direction, but there is a small problem in that somebody who does not fully comply has a competitive advantage over someone who does.
870. Looking at other countries in Europe, I am of the strong belief that the island

- as a whole would have a better chance of sustaining perhaps two or three really good product manufacturers. They will tell you that to run one of those plants, you have to keep feeding it, you have to have a certain turnover, and you have to have a controlled supply. It is no good if people turn up on a Monday morning and there is no tyre supply to keep their plants running. So, there may be a better model for those kinds of plants on an all-Ireland basis. A second company is Crossmore Transport, which Fiacra has been to inspect. It seems to be improving its model. There is possibly an advantage to having a co-ordinated North/South approach for plants such as this.
871. **The Chairperson:** In the North, there is certainly no scheme for doing this on a voluntary membership basis. It was suggested at one of the sessions a couple of weeks ago that there should be mandatory registration of all manufacturers and retailers, which would provide an audit trail. How do you think that a mandatory scheme would work?
872. **Mr Murray:** One of your biggest challenges will be exactly what has happened in the South of Ireland. Five manufacturers are on the national executive committee of the Irish Tyre Industry Association. Two of them have offices in the South of Ireland, so they are obliged to obey the law. Three others have agreed to be members of TRACS voluntarily, because they are shipping the product in from England. They are doing their invoicing from England, and the logistics between the two countries are so good that it is seamless for customers because they order tyres over the telephone or on the internet, and they arrive a day or two later. If they ordered tyres from us, the process would be exactly the same, because we have a warehouse in Dublin and one in Antrim. However, if there were a mandatory obligation in the North, you would capture only the people in your jurisdiction. Those outside, for instance the two manufacturers in the South of Ireland, would not be obliged to comply, simply because they are outside your jurisdiction. There may be a line on the map that says that there is a border, but that is really all it is; tyres can move quite freely.
873. Earlier, Fiacra talked about the full PRI. This would suit the industry because it would capture the cost of the recycling at the point of entry. There is no obligation on the retailer, because he simply rings whoever has been mandated to collect the tyres. The retailer will say that he has 100 tyres to be collected, and they are collected.
874. **The Chairperson:** That is the end of the story for the retailer.
875. **Mr Murray:** It is the end of the story for everyone. The problem is that there are two different jurisdictions, North and South, with, potentially, two different outlooks on the problem. If we were to adopt a PRI in the South of Ireland, and the North of Ireland did not do so, it would mean that, at point of entry, I would be paying €15 extra for a truck tyre to cover the cost of its ultimate disposal. That charge would not apply in Northern Ireland, so you can imagine what would happen. Every truck tyre taken into Southern Ireland would come from Northern Ireland, and the obligation would pass from the original supplier to the retailer. As things stand, it is easy to audit the 45 tyre importers in Southern Ireland, but there are 1,500 economic operators. Can you imagine what would happen if all of them were made responsible for reporting what they import? It would become unenforceable.
876. Therefore, as an industry, we are very concerned. On the industry council, I represent importers, and we have a huge concern that a full PRI in the South will force us to shift product from Northern Ireland, forcing our customers to be obligated for the reporting, which will never happen. It would put us in the position of becoming cowboys from a competitive point of view simply because there would be a €15 or €16 difference. We reckon that it would cost around €15 or €16 per tyre if a collector were given the contract for an area of the country. It

- would no longer be competitive bidding, but, if you had got the bid originally, there would be a standard cost for taking tyres away. There would be a runway between the North and the South if that were to happen.
877. The other impact would be on revenue. If you ship a tyre from Northern Ireland to Southern Ireland, and to someone who has a VAT number, you do not have to collect the VAT because they are in the EU. If that person sells the tyre for cash in the South, there would be no record of it, so the Southern Government would lose the VAT on it, and you would be creating a black economy. If the position were reversed, your jurisdiction would lose the revenue.
878. **Mr Conyngham:** We are a multinational company that has a base in Dublin, but I also have a line management relationship to Warwick, which has one to Brussels. Therefore, to us, territory is just a place in which we can sell tyres. Our stated way of operating is that we will co-operate and comply with any government or local authority, but I agree with Niall. In the ideal world, when tyres are sold to retailers in Dundalk and Newry, we always prefer, from the wholesale point of view, that those tyres are fitted to vehicles in those two towns. There is very little that we can do about currency fluctuations or competitive pricing in retail. However, if there are artificial factors, such as different compliance schemes North and South, and you have tyres going either way, we do not think that that is a good idea, because local economic operators becomes disadvantaged on either side of the border for various reasons. As a multinational tyre distributor selling its product, we think that co-operation and a similar scenario on both sides of the border would be positive and would not disadvantage the Newry guy or Dundalk guy and they could compete on a level playing field. We would rather not see something thrown into the mix that could be otherwise controlled.
879. **The Chairperson:** The VAT increase is also creating disadvantage in the South.
880. **Mr Conyngham:** Yes, as I said, those are things over which we have control.
881. **Mr Quinn:** On the waste side of things, if you are running a full PRI, accounting for tyres, and appointing a waste collector, you will have records to show that, for example, a tyre has come from the North and has no disposal fee associated with it. In such instances, the holder of that waste would have to get rid of it, and it would move back up North, unpaid for, because the appointed collector would not pick it up.
882. **Mr Dallat:** Maybe I am ahead of the agenda, but I want to ask a question about retreads.
883. **Mr Conyngham:** I had that down as something to mention.
884. **Mr Dallat:** We visited a retreading place in Craigavon, and I was very impressed by the process. According to the report, up to 40% of truck tyres will be retreaded. How does that fit into the whole bookkeeping exercise?
885. **Mr Conyngham:** For many years, truck tyre casings have been manufactured to have a life beyond the tread; the tread is the vulnerable bit. So, after 100,000 km or miles, the casing might be totally intact and undamaged but the tread will have gone below the legal limit. In the States, they have straight roads and no curbing, so casings last an incredible length of time. They can be given up to three and four lives.
886. That practice has been going on in places such as Australia and America for many years. In Ireland, North and South, and to a lesser extent in the UK, it has not been as popular. One reason for that might be that bad roads here are damaging the casings. However, with the hard times we are in, our retreading of truck tyre casings has gone up by about 20% in the past year. I am sure that Niall has had a similar experience. We are forecasting the level to grow further.
887. Retreading is very environmentally friendly, and we are actively promoting and encouraging it. We can go to fleet owners who cannot afford our premium

- brand tyres any longer because they are being paid less by their customers and offer them a solution. We can say that we can sell them some new tyres and that we can inspect their tyre casings. It is very important that we have a quality control system for that. There is a place in Craigavon, and we have a number of licensed companies that will inspect casings. You have to have an engineer to do that; we train people in the retail depot to inspect casings and report on and approve the casings that are safe to be retreaded.
888. Retreading is something that we are actively promoting. Most major manufacturers are promoting it, and you will see more of that. Our company bought Bandag, the biggest global retreader. It is now conjoined with Bridgestone and is promoting retreads. We are not the only people who are doing this: all manufacturers are retreading. Over the past six months, we worked with a waste disposal company — nothing to do with tyres, just domestic waste — in Dublin, in conjunction with whom we have just won an environmental award for reducing their carbon footprint by something like 150 carbon tons. I do not know the exact figure, but we reduced their carbon footprint in addition to saving money on their fleet. Therefore, it is certainly a part of the solution.
889. At some point, you will end up with a carcass. However, in the interim you can reduce the number of carcasses manufactured, which does not seem like good business for us, but sometimes you have to do these things. Ultimately, it has a much longer life than normal.
890. **Mr Murray:** Legislators have a part to play as well. If you truly believe in recycling, then the pyramid becomes, reduce, reuse, recycle. It would be of huge help to the industry if local authorities were obliged to use retreaded tyres on low-speed vehicles, such as bin lorries, that are not going to be travelling on a motorway at 100 kilometres — or 60 miles — an hour. The industry would then be forced to come up with a product that would perform under stringent conditions set by local councils. At the moment, it is difficult for sellers, because most tyres that are retreaded are fitted on trailers. That is their big use.
891. As a company, we import some car tyre remoulds from Spain, which are becoming desirable products because there is a difference between the lowest price of a budget tyre and a remould. They used to be similar in price, with the result that if you were offered the choice of a remould or a new tyre at retail, the new tyre would always win, even if it had been made in a really bad plant in China. There is about 50% natural rubber in a truck tyre and 35% in a car tyre, but the cost of the raw material has risen from about \$2,500 a ton to \$6,500 a ton. It fluctuates a bit, but it means that the price of new tyres is rising. There is now a difference between the price of a remould and that of the lowest budget tyre. There is now an area in the market for the retread, but it would be a greatly enhanced market if local authorities were to fly the flag for a designated part of their fleet having to use retreads.
892. **Mr Dallat:** Historically, is there an image problem because remoulds were always considered to be a blowout risk?
893. **Mr Murray:** Of course.
894. **Mr Conyngham:** Sure.
895. **Mr Murray:** The car side really has not caught on too much, because, generally speaking, motorists are not as technically-minded as the people who run transport fleets.
896. **Mr Murray:** A transport manager knows, down to the penny, what it costs him to run a vehicle for a kilometre; the motorist does not.
897. **Mr Conyngham:** And typically, the carcass of a car tyre has a finite life. The truck tyre carcass is deliberately made to be much more robust. So, there are economic forces at work. You can literally make a bulletproof car tyre that will last and can be remoulded. However, at point of sale, would that work economically?

- The fact that such tyres are not that prevalent probably means that the answer is no. Who knows? As we go forward, the world changes and it is possible that we may see more robust carcasses for car tyres, similar to truck tyres, that can be retreaded. At the moment, the market is more niche than general. I believe that the commercial truck tyre area will grow globally. In places such as America and Australia, there are significant sales. Up to 40% of their truck tyres are retreads.
898. **Mr Murray:** The tyre is designed to be used again and again. The typical truck tyre has about 23 mls of rubber when it starts out. It is regrooveable when it wears down to about 11 mls because, obviously, 23 mls of rubber would be very wally. Therefore, bridges in the tread pattern are needed to keep it stable.
899. You will see the word "regrooveable" written on the side of the tyre. So, when the tread gets down to about 11 mm or 12 mm, the tyre is regrooveable, and is still under warranty if it is regrooved to the manufacturer's specification. All good companies will show you how to do that. The tyre comes back after it has been used down to the legal limit and can be retreaded. As the tyre carcass has been designed for multiple lives, it can stand up to the abuse.
900. A car tyre is generally designed to have one life, but the company in Spain that we buy some of the remoulds from uses only premium company carcasses. This means that they will not take a Chinese tyre carcass. The carcass has to come from Bridgestone, Michelin or Hankook — some of the major manufacturers, because that is all that they will accept for the remould.
901. **Mr Dallat:** So, there is an education exercise to be done.
902. I have one other question to ask. In the North, we are very fond of commemorations, whether it is 12 July, internment, 15 August or whatever. A huge number of tyres are burned at those commemorations. Do you have similar problems in the South? How
903. do you deal with those, or is it a local authority issue?
903. **Mr Conyngham:** Due to TRACS and what we have done, it is occurring much less now than in the past. I remember my childhood, when there were literally mountains of tyres coming left, right and centre to bonfires, unlike now. On Halloween, which is our biggest night, I would ring the police myself, just because I am in the tyre industry, and this year, I made three phone calls to the police, because I drove past children with shopping trolleys filled with tyres. I rang the police to say that I had seen somebody with tyres, because it is illegal, as I am sure it is in Northern Ireland, to burn tyres. I do not know; is it illegal?
904. **The Chairperson:** It is.
905. **Mr Dallat:** It is not so easy for the police to do anything about it. [Laughter.]
906. **Mr Conyngham:** I understand that. How they deal with it is not for me to say, but I report it nonetheless. We feel that it is not good for our industry to see children moving tyres around. We try to tell people that what comes out of tyres when they are burned is poisonous and that they really do not want to be standing near them.
907. The fact is that we are now dealing with more of the waste properly. We are by no means there yet, but, I think that, because we have moved down that road, it has naturally taken tyres out of that situation. We see much fewer tyres being used for bonfires. There is more enforcement on Halloween night, for fires in general. That has improved too. So, all those things help.
908. In Northern Ireland, there are cultural sensitivities, etc, so the situation would have to be handled in the right way. I represent Bridgestone in Northern Ireland as well, and perhaps the way forward there would be to have more of an educational programme. People, particularly parents, could be told about what comes out of burning tyres and that burning wood, such as a nice pile

- of pallets, is much more environmentally friendly.
909. **Mr Murray:** You are giving the pallet industry a problem. [Laughter.]
910. **Mr Conyngham:** There is an educational way to tell people. Policing this is probably a very difficult thing. However, I know that a system such as ours means that responsible retailers will not now give tyres to children.
911. **Mr Murray:** We have to account for the tyres, because we now have to report to TRACS. If we buy 100 tyres, we have to be able to report 100 carcasses going somewhere.
912. **Mr Dallat:** I think that your response is very good. We are probably a decade behind, and, eventually, education will overcome the problem. Our local council officers negotiate with the organisers of bonfires. On some occasions, they will exchange wood for tyres; a sort of barter. By and large, that works. I think that we will eventually get to the point in which the wider community will say, "You are not doing that in our neighbourhood; that is poisonous".
913. **Mr Conyngham:** Yes, exactly. We have video footage of bonfires burning, and we can show that tyres do not add greatly to a lovely fire, whereas wood does. It gives a big flame.
914. **Mr Dallat:** What about the rainforests? [Laughter.]
915. **Mr Conyngham:** Tyres give loads more black smoke, because carbon is produced initially, and nobody wants that.
916. **Mr Quinn:** As regards remoulds and retreads; statistically, those are still within the supply system. So, you are not counting the tyre four times.
917. **Mr Dallat:** That is useful to know.
918. **Mr Quinn:** It comes in and then leaves as waste, when it has finally reached the end of its life.
919. **The Chairperson:** Does that mean that it is still counted as one tyre?
920. **Mr Quinn:** Exactly, that is it.
921. Even on an ad hoc basis, local authorities are far more aware of tyre burning. People ring us and say that someone is stockpiling tyres. A retailer may be getting rid of them before Christmas, for example. He might be putting them outside the gate or doing that sort of old thing. A lot of that has stopped because the local authorities and the fire officers are going around. They are really hammering them, particularly at that time of year, to make sure that they do not burn tyres. Local authorities also let them build up the fire, wherever they have it, and they come out at 3.00 am and remove the whole lot.
922. **Mr Kierans:** One incident was reported a few days before Halloween. It was reported that someone was supplying children with tyres. The guards found it. We made the decision then to revoke that individual's membership.
923. **The Chairperson:** That is the penalty, then.
924. **Mr Kierans:** We do not want to be associated with members such as that. We do not want or need that, as it is not compliant.
925. **Mr Hamilton:** I have a couple of very quick questions to ask about producers. It seems that they have very much bought in to this now. When the idea of legislation was first mooted, how resistant was the industry? From what you are saying, I get the sense that you realised that something was coming and you felt that it was probably better to get in there and shape it and to make sure that there was a system in place. We see that quite a lot in different types of legislation.
926. **Mr Murray:** In the beginning, the Environment Department came to us and said that we had a choice. We quickly engaged an expert in the field of compliance schemes, Fiacra, and were able to convince the Department early in the negotiations that a self-compliance scheme was a runner. Obviously, the Department's wish was for a full PRI, because that allows you to close the book on the whole problem very quickly.

However, we were able to convince the Department that the Irish Tyre Industry Association represented most of the key players in the marketplace and that, when we were negotiating with them, we were doing so on behalf of the industry. Therefore, we were able to convince them that a self-compliance scheme was a runner. As you can imagine, there are some sceptics in the Department, but I think that we have proved over the past three years that their trust in us was not misplaced and that the responsible part of the industry is very much compliant and wants to be so, as that is its ethos.

927. In fact, the Irish Tyre Industry Association has changed its membership criteria. We hope to get to the point at which we will all have these criteria. In the first instance, you have to make a declaration that you are compliant with various legal responsibilities, not least of which is your company's recycling ethos. To be a member of the association, you must declare that you are a member of TRACS or another compliance scheme, or that you are reporting your waste stream to your local authority. We decided that, even if we lose some members, which we are going to as a result, we will set a standard.
928. In Northern Ireland, you have a similar organisation, the National Tyre Distributors' Association (NTDA). Given that we operate in Northern Ireland, we are members of that body, as are most of the major players in Northern Ireland. So you will be able to talk to the industry, as there is one body up there that you can speak to and engage with. It has the backing of the UK organisation.
929. **Mr Conyngham:** It is the regional body.
930. **Mr Murray:** It is the regional part of the NTDA in the UK. The NTDA has huge resources, and all manufacturers buy in and apply their resources to help with any sort of research or information that is required. It is readily available through the manufacturers.
931. **Mr Conyngham:** Also, just to answer your question; although I cannot tell you

the exact date but it pre-dates all this, all major manufacturers at European level committed themselves to producer responsibility. I think that some directive goes along with that. However, they did not go so far as to say how it should be applied in each country. If you take the Bridgestone example; we were pretty much told from head office that we should make every effort to deal and assist with it as the best solution for tyre waste in our country. That remains the directive. However, if you go round Europe, you will see that some countries have a PRI scheme or a self-compliance scheme, which is the case in Ireland. So, there are different approaches. However, it is certain that there is no major tyre manufacturer who does not realise that they must work within whatever framework they have.

932. **Mr Hamilton:** I was about to say that my concern is that if our Department likes a model such as this and if, as a Committee, we decide to look at it, there could be resistance to introducing it. I know that a lot of tyre brands are available now, but, at the end of the day, you are saying that there is not a tyre manufacturer who is not familiar with such a system and that, in fact, they are used to a much stricter system.
933. **Mr Conyngham:** Yes.
934. **Mr Hamilton:** It is not as though, if the Northern Ireland Assembly were to pass legislation to do this or encourage it —
935. **Mr Conyngham:** I can pretty much tell you that you would get the full support of all major European and international tyre manufacturers. The only area where we have ever had negativity or resistance is from a local importer of a small international brand. I cannot guarantee that every person will support it, but the household names in the tyre industry have all signed up. They all signed up to the BLIC principles, which relate to producer responsibility, at European level and are committed to it in all European markets.
936. **Mr Hamilton:** That is interesting, because it gets us over a potential hurdle. You

- sometimes deal with an industry that is not necessarily creating the problem but is contributing to it through what it is producing, and there is sometimes a lot of resistance, and the industry says: "It is not our problem; we are just doing our job. The other people at the end of the line are causing the problem."
937. **Mr Murray:** Retailers want to sell tyres, and the waste stream that they are creating is a by-product of those sales. By having legislation in place, you would create a level playing field for all legitimate businesses. If I collect €2 for recycling a tyre by throwing it into a field, I have a €2 advantage on the person who pays that €2 to a recycler. So, if legislation is in place, and I have to account for my tyres, that provides a level playing field, and the cowboys will have to find some other way of getting an advantage on legitimate traders. I think that you will find that the retailers in Northern Ireland will be quite helpful.
938. **The Chairperson:** The association of retailers suggested that there should be mandatory registration for everybody.
939. **Mr Murray:** They will want a level playing field, because the biggest problem with being compliant is that you are always in competition with somebody who, potentially, is not compliant.
940. **Mr Quinn:** From a TRACS point of view, you will probably find that it is quite price sensitive, even when we say 10 cents a unit. That means that every 10 tyres is €1, so it starts to mount up. The issue for your retailers and importers might be economies of scale, and we suggest that you let TRACS do it from an office in Newry or Belfast and use the one system, because it is already built, and we already have members. It would mean that you would keep the same price, so you would not have a 20p difference in the North or a petrol differential or anything like that to deal with. It should be exactly the same.
941. **Mr Kinahan:** I have one or two questions. You mentioned at the beginning that councils are using fines. Roughly, what sort of scale of money is involved?
942. **Mr Quinn:** It is not so much about the fines as about the cost of going to court. That is a real deterrent. You might come out of the court with a fine. If you get one summons at €1,900 — £1,500-odd — for each summons, you might not get the whole book thrown at you, so you might have to pay only €500 on that summons. However, you will have four other summonses relating to the same thing, and you will end up paying maybe €3,000. However, taking into consideration the legal team and the time taken to get there, the fact that waste issues nearly always feature in the local press is worse.
943. **The Chairperson:** Reputation is important.
944. **Mr Quinn:** Yes, very much so.
945. **Mr Kierans:** In one incident in Kilkenny, a man was fined €3,500. Recently, in the UK, two people got prison sentences of two years each. One guy had rented land and was dumping all the tyres on it. In every case, you are given the option to clean it up and the chance to put it right. In both cases, they did not. The UK is stronger on such matters.
946. **Mr Murray:** In our waste management legislation in the South, the upper limit is €3 million. In my mind, the problem with that is that, the smaller the fine, the more realistic it is. If retailers have to pay €3,000, €4,000 or €5,000 for an infringement, that is real money to them. If you say €3 million, the retailer will just lock the door and walk away, because he is never going to pay you €3 million. No local authority will bring you to court unless they have a cast-iron case or you are a criminal. A €3 million fine is just ridiculous. One thing we suggested to the Department is that there should be a lower fine for non-compliance simply because it is far more real. If it costs you €50 to park your car illegally, that will hurt you. However, if the fine for dumping tyres is €3 million, it will never be enforced.
947. **The Chairperson:** Again, we do not want the fine to be so low that people can take it for granted and just pay it.

948. **Mr Murray:** No; €4,000 or €5,000 is a significant amount of money to a tyre shop. It probably means that they will have worked for a full two weeks for nothing.
949. **Mr Conyngham:** It must be something that a judge feels he can reasonably apply.
950. **Mr Murray:** It must get your attention. You will not want to appear in front of the judge again.
951. **The Chairperson:** It is a deterrent.
952. **Mr Kierans:** It is the publicity that you do not want.
953. **Mr Quinn:** Smaller fines are easier to administer.
954. **Mr Murray:** It has to be an affordable deterrent but something that hurts you at the same time.
955. **Mr Quinn:** As Niall said, a fine of €3 million will not be administered unless someone is caught out in a cast-iron case. We have also seen how long the repatriation of waste takes. You want something that is quick and easy to administer.
956. **Mr Murray:** If you think about it, a good depot with four or five guys working in it would have a turnover of about €1 million. If turnover is €1 million, you must have fines that are relative to that so that it does not become —
957. **Mr Kinahan:** Niall, you mentioned at the beginning that farmers ought to come on board at some stage. You have to be careful how you bring in rules so that all your tyres do not come north for bonfires.
958. **Mr Murray:** At the moment, our farmers can get tyres only from a licensed recycler. Under legislation, it is now illegal for a tyre shop to give tyres to a farmer. He must get them from a recycler. The idea is that, when the farmer is finished with the tyres, he is responsible for disposing of them with the recycler.
959. **Mr Kierans:** Unfortunately, they do not all do that; that is the problem.
960. **Mr Kinahan:** What about the ones who got them ages ago?
961. **Mr Conyngham:** The herd number also has to be given to the tyre retailer, so a record is made and a system is in place to track it. Unfortunately, given the nature of the wide-open countryside, that is the lowest level that we want tyre recycling and tyre reuse to go to. We are not saying that it will all be over tomorrow morning, because they will probably disappear into the worst places imaginable. We are saying that we would like to move away from that over time. Crumb Rubber and other companies are making new systems that, apparently, are technically better for silage pits. That system has sheeting and a plastic wrap. Therefore, there are other systems that are technically better, so we hope that that in itself will take away some of the tyre use.
962. **Mr Quinn:** There is a system in place that is free for the farmer. It is recorded by herd number, category and units so that we know exactly who has what. Last year, there were about 73,500 tyres, which is 11% of what we recorded as collected. We think that it is twice that figure, to be honest. In some local areas, the farmer goes directly to the local retailer. As I said, we think that that is an uncontrollable and unsustainable practice. It will never be counted as correct if you have a local arrangement.
963. **Mr Murray:** The Irish Tyre Industry Association has engaged with the Irish Farmers' Association. We convinced it to put a member on the board of TRACS. They also want this to go away in the long term. In the South of Ireland, we have a scheme that concerns waste on the farm. One requirement of that scheme is that waste tyres are not kept above a certain level. I think that the legislation allows for 500 tyres; no, you are allowed —
964. **Mr Quinn:** They got a generous limit of 5,000 tyres; eight tyres a square metre of silage pit. Who needs that amount? Nobody needs that amount. To be honest, our records show that nobody is in receipt of that amount or anywhere

near it. The records show that genuine guys are getting them, but, still and all, there is an impression that it is a legitimate reusable. Perhaps we would like TRACS to get the message out that you may as well put a washing machine on your silage pit, if that is the way that you think about it.

965. **Mr Kierans:** It does not have to be a tyre.
966. **The Chairperson:** Thank you all very much for coming to brief us. It has been very informative. You have a very good system.
967. **Mr Murray:** Thank you; it was a privilege to be invited.
968. **Mr Quinn:** Just keep an eye out for the review and what it might say. It will influence your reports or any decisions that you have to take.
969. **The Chairperson:** We will keep an eye out for it. When is it coming out?
970. **Mr Quinn:** I do not know. It was supposed to be last year, so — [Laughter.]
971. **Mr Murray:** There was a change of government in the meantime.
972. **The Chairperson:** It was very strange that a second system of certification throws everything up in the air.
973. **Mr Murray:** Unfortunately, there was a political situation. A disaffected person who had political clout forced the issue with some local politicians. It was a bad decision.
974. **The Chairperson:** OK. Thank you.



Appendix 3

Written Submissions

Ards Borough Council Submission



**ARDS
BOROUGH
COUNCIL**

Burgh Council o' the Ards Newton an' Blathewick

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Ashley Boreland, LLB (Hons) FCIS
Chief Executive

Our Ref.

Your Ref.

Date

Dr 6710

6th July 2011

Anna Lo, MBE, MLA
Chairperson
Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BT4 3 xx

Dear Ms Lo, MBE, MLA

Thank you for your recent letter concerning the management of used tyres in Northern Ireland and I would respond to your questions in the order that they were asked.

- Over recent years through the Council's bonfire management programme the number of tyres deposited and subsequently burnt has significantly reduced. Unfortunately three sites within the Borough have declined to be involved in the bonfire programme this year and as a result tyres have been deposited. At one site there are approximately 1000 tyres while at the other sites the number is significantly less with approximately 300 tyres between them.
- Over the last five years the situation has improved significantly as a result of the Council's bonfire programme.
- Generally speaking, excluding the three sites noted in the first response, if tyres are left on site bonfire builders would



- voluntarily move them to the side enabling the Council or other relevant body to remove them.
- Through the Council's Good Relations Officer and supported by other Council staff and relevant agencies such as the NIHE, the bonfire programme has aimed to develop local relationships with bonfire builders and the community to provide a control over bonfire sites and the material deposited. This programme has, with only a few exceptions, led to a significant improvement in bonfires and associated issues such as anti-social behaviour, cleanliness of the sites etc
 - As above
 - Central government support in reducing the availability of tyres through better tracing capabilities and enforcement. The promotion of the environmental damage and health concerns posed would also be of assistance as it may help discredit those who provide them for bonfires while also improving the likelihood of members of the community reporting those responsible.

I hope that the above is of assistance should you however require any further information then please do not hesitate to contact me at Newtownards 824040 or at richard.brittain@ards-council.gov.uk.

Yours sincerely



Richard Brittain
Borough Inspector

Strabane District Council Submission

Ref: MS/KMG

08 July 2011

Anna Lo, MBE, MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BT4 3XX

Dear Ms Lo

Re: Northern Ireland Assembly Committee for the Environment Inquiry into the Management of Used Tyres in Northern Ireland

With reference to your letter dated 30 June 2011 addresses to Mr Faithfull, Chief Executive to which I have been asked to respond. With regards to the specific questions you outlined in your letter I would respond as follows:

- Strabane District Council experiences problems with used tyres which normally occur during the last 2 weeks of August prior to children returning to school when they commence collecting tyres for Halloween bon fires.
- With regards to the severity of the problem we could estimate that we would normally remove in the region of 100-150 tyres per annum from various locations where tyres have been deposited for storage prior to moving to the bon fire site.
- We would estimate that the problem with regards to the disposal of tyres for bon fires has remained similar over the last 5 years.
- Strabane District Council has had very few problems with regards to the illegal dumping of tyres.
- Council established a Waste Management Working Group 2 years ago to deal with various issues of waste management and this group co-ordinated a series of multi-agency meetings in an effort to try and deal with the illegal disposal and use of tyres for bon fires. NIEA Enforcement Officials attended a number of these meetings and as part of their remit they visited all tyre distributors in the District to inform them of their responsibilities with regards to the proper disposal of tyres. NIEA were also successful in prosecuting a local tyre distributor for the illegal dumping of tyres within the District.
- The only measures that Council have taken is as outlined in the previous bullet point and I attach a letter dated 22 October 2010 forwarded to the then Minister of the Environment regarding Council's concerns.
- The suggestion from Strabane District Council would be that the NIEA through their Enforcement Officers play a more pro-active response with tyre distributors and ensure that through auditing the sale of new tyres and the disposal of used tyres that there are no discrepancies of tyres being disposed of for illegal uses.

Hope this information is of assistance.

Yours sincerely

Malcolm Scott
Chief Technical Officer



Strabane
District Council
 Comhairle Ceantair
 an tSraitha Báin
 Strabane District Council

Ref: MS/KMG

22 October 2010

Mr Edwin Poots MLA
Minister of the Environment
DoE Private Office
Room 717
Clarence Court
10-18 Adelaide Street
BELFAST
BT2 8GB

Dear Minister Poots

Re: Control of Disused Tyres

Strabane District Council has established a multi agency working group consisting of Councillors, Council officials from Environmental Health and Technical Services Departments, NIHE, NI Fire and Rescue Service, PSNI, DPP, NIEA officials and Community representatives to discuss the issues surrounding bon fires.

At a recent meeting of this group discussions took place regarding the controls that exist for the proper disposal of disused tyres from tyre distribution depots. NIEA officials from the Crime Prevention Section informed the meeting that they had recently visited all tyre distributors in the District as they had done last year and informed them of the need for proper controls and disposal of their disused tyres. It was also clarified that a tyre distributor from the District had been successfully prosecuted in 2009 and fined £12,500 for the improper disposal of tyres.

Unfortunately the Council is still being asked to deal with a considerable number of disused tyres which are being stored in various locations and often in vacant properties or abandoned on the footways if intercepted by PSNI. The collection and proper disposal of these tyres adds considerable additional costs to Council's already stretched budgets. There is also a high risk of considerable damage to properties and possibly lives if these tyres stored in vacant properties were to be set alight prior to moving to the bon fire site.

I have been asked by the working group to inform you of the issues and it has been suggested that you consider implementing legislation which would require some form of electronic tagging or branding so that these tyres can be traced to the tyre distributor responsible for their proper disposal. I would be grateful for your views in relation to this matter.

Yours sincerely

Malcolm Scott
Chief Technical Officer

Fermanagh District Council Submission



Brendan Hegarty
B.Sc. F.C.A.
Chief Executive



Technical Services

Killyvilly, Tempo Road, Enniskillen, Co. Fermanagh,
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22 July 2011

Ms Anna Loe, MBE, MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont BT4 3XX

Dear Ms Loe,

Re:Northern Ireland Assembly Committee for the Environment Inquiry into the Management of Used Tyres in Northern Ireland

Thank you for your letter received 4 July 2011 sent to the Chief Executive and forwarded to myself for response. This matter was brought to our Council meeting on Tuesday 19th July and our response is below.

In general terms, the magnitude of the problem of using tyres on bonfires or dumping them in civic amenity sites has reduced significantly over the last 5 – 10 years. This has been brought about by the introduction of legislation controlling the disposal of tyre casings and improvements at civic amenity sites resulting in operator control and raised standards to that of recycling centres.

As all used tyres are now retained by tyre suppliers, and the cost of casings disposal passed on to the motorist, very few tyres are now brought to Council facilities. The Council participates in a SWaMP disposal contract whereby all tyre casings are diverted and recycled.

Last year, 2010/11, approximately 1,500 tyres were forwarded to the contractor and, apart from some dumped in a layby on one occasion, there are very few issues relating to used tyre management. In terms of burning of tyres in bonfires, this practice too has reduced so significantly that there is rarely the need for the Council to recover tyres at such events.

I trust this will answer your request and please feel free to contact me if you require any further clarification.

Yours sincerely,

Gerry Knox
Director of Technical Services

Robert Horde M.C.I.E.H. M.I.O.S.H. M.Img
Director of Environmental Health

Robert Gibson B.Sc.
Director of Leisure, Tourism & Arts

Brendan Hegarty B.Sc. F.C.A.
Director of Finance & Information Technology

Gerry Knox B.A.
Director of Technical Services

Desmond Reid F.R.I.C.S. D.M.S.
Director of Building Control

Limavady Borough Council Submission

ENVIRONMENTAL SERVICES DIRECTORATE

ENVIRONMENTAL HEALTH DEPARTMENT

health@limavady.gov.uk

Liam C. Flanigan, B.A., D.M.S.,

Chief Executive

liam.flanigan@limavady.gov.uk

Noel A. Crawford, B.Sc., M.C.I.E.H.,

Director of Environmental Services

noel.crawford@limavady.gov.uk



Our Ref: JG/js

Your Ref:

25 July 2011

Ms Anna Lo, MBE MLA
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BT4 3XX

Dear Ms Lo

INQUIRY INTO THE MANAGEMENT OF USED TYRES IN NORTHERN IRELAND

Further to your inquiry, I wish to advise that over the past 5 years Limavady Borough Council area have not experienced problems with used tyres. However, this year in order to control the size of the bonfires, the Development Directorate attempted to implement a cage scheme for bonfires, but at the last minute the scheme fell through.

I hope this information is of assistance.

Yours sincerely

A handwritten signature in black ink, appearing to read "JRGlass".

JACQUELINE GLASS
ENVIRONMENTAL HEALTH MANAGER

Jacqueline R. Glass, B.Sc. (Hons), M.Sc., M.C.I.E.H., Environmental Health Manager
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Tyre Recovery Association Limited Submission

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Telephone: 0845 301 6852
Fax: 0845 301 6853

E-mail: info@tyrerecovery.org.uk
Website: www.tyrrerecovery.org.uk

Mr S McCann
Northern Ireland Assembly
Environment Committee Office
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Ballymiscaw
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BT4 3XX

Enquiry into Used Tyre Disposal in Northern Ireland

The Tyre Recovery Association (TRA) welcomes the enquiry into End-of-Life-Tyre recovery in Northern Ireland.

The TRA is a UK – wide body representing ELT collectors and reprocessors. The TRA also operates the tyre industry's Responsible Recycler Scheme is a unique best practice audit regime which embraces about 80% of total UK tyre arisings. Under the scheme, TRA members are audited for site and regulatory compliance as well as for traceability. In Northern Ireland two companies R4 Ltd and Treads Recycling Limited are member of this scheme.

In England and Wales the TRA has worked very closely with the Environment Agency's Crime Team to stamp out rogue activity in the sector with great success. The TRA is also a lead member of the Industry/Government used Tyre Working Group (UTWG).

Initial Response to the Enquiry (as per the order of your questions)

1. The TRA estimates that Northern Ireland itself generates some 16000 tonnes of ELT arisings annually. However, it is not possible to assess cross- border flows given the current ineffectiveness of the tyre recovery regime in the Irish Republic.
2. We are aware of some criticism of the permitting system for collection and storage of tyres in Northern Ireland. In our experience not only is there a need for rigour in the issuing of permits but once issued, their holders should be regularly held to account. Our own RRS audit regime achieves this but our members' businesses in Northern Ireland are constantly undermined by those operating to lower standards or indeed to none at all.

We recognise the current resource reduction now being experienced by the EA in England and Wales as well as in Scotland and Northern Ireland and are working on the concept of a 'Responsibility Deal' with the EA in England and Wales that would result in a partial

're-engineering' of our own audit regime to meet the routine enforcement needs of the Agency. In this way the Agency's reduced resources could be more effectively targeted to areas of greater enforcement.

3. Proper adherence to the current legal framework for the collection, storage and reprocessing of End of Life tyre is costly and protracted. New applications can take well over a year to process and in this interim period operators are able to apply for a waste carriers licence costing £120.00 and be operating until such time as the Waste Management Licence is granted (or denied). It is also our experience that regular compliance inspections often do not take place prior to the granting of the WML. This situation provides a useful window for less scrupulous operators to exploit.

We would also question the current rationale governing the issuing of WML 'exemptions'. By definition operations under an exemption have a lower cost base than established and fully regulated businesses who they are able to undercut. This undermines the collections infrastructure in Northern Ireland.

4. Legal Framework/Enforcement

There are various approaches to ELT recovery employed across the EU. Under the EU Landfill Directive the notion of 'Producer Responsibility' applies to us all but its application differs between member states. Here in the UK government has exposed a voluntary market – based approach which is efficient, cost-effective and has generally works well. Nevertheless, whatever the approach adopted it cannot work without effective enforcement by the relevant authorities and with the help of the Tyre Industry itself. The UK tyre market is heavily multi brand with some 150 tyre brands in circulation at any time. We believe that the recovery system we have adopted is largely effective in reaching out to all in the market place rather than simply the more 'visible' brands.

We would be prepared to comment in much more detail on the relative advantages of the different approaches should you wish.

- We do not have direct knowledge of the size and significance of ELT stock piles in N.I nor of the extent to which they may be contaminated or difficult to access. In mainland UK most significant stockpiles have been eliminated over the past decade with the help of initiatives by local authorities and the EA.
- We believe that the processing infrastructure in both the North and South or Ireland is inadequate and that this drives malpractice of one form or another. Car tyres in particular require more local recycling opportunities that exist at present. Waste tyres generally are a potentially valuable resource with a number of valuable end-uses. The TRA and its members stand ready to provide help and guidance in this respect.
- We believe that the best practice enshrined in our existing Responsible Recycler Scheme should be more widely followed in Northern Ireland. To achieve this will require in particular more engagement from the retail tyre trade and more targeted enforcement by the relevant authorities. The traceability element in our scheme would also help expose what we suspect are significant cross-border movements of waste tyres to and from the Republic

We trust their comments are of help to you initially and would be happy to meet with the Committee in Belfast should you feel this would be helpful to its work.

Yours sincerely

Peter Taylor OBE
Secretary General

Carrickfergus Borough Council Submission



Carrickfergus Borough

Environmental Services Department
Environmental Health Section
Carrickfergus Museum & Civic Centre
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5 July 2011

Anna Lo MBE MLA
Environment Committee Office
Room 245 Parliament Buildings
Ballymiscaw
Stormont
BT4 3XX

Dear Anna Lo

RE: MANAGEMENT OF USED TYRES IN NORTHERN IRELAND

Thank you for your recent letter regarding the above issue. I trust the following information will be of use to you.

1. It would be impossible to quantify the severity of the problem in Carrickfergus. Tyres are generally deposited and hidden in the centre of July bonfires outside office hours.
2. The problem seems to have diminished over the years most likely because the number of bonfires has halved.
3. We only seem to have a problem in relation to July bonfires.
4. Council seeks through its membership of the local Bonfire Forum to educate local groups on the dangers of burning tyres.
5. Council has in the past written to tyre fitters advising them to dispose of their unwanted tyres responsibly.

Yours sincerely

A handwritten signature in black ink, appearing to read "Alan Barkley".
ALAN BARKLEY
Director of Environmental Services

To view Carrickfergus Borough Council's Environmental Health **Enforcement Policy** go to
<http://www.carrickfergus.org/environment/environmental-health/>

To make a **complaint or comment** on our Environmental Health service please contact us at the above address, telephone 028 9335 8000, or email sec2.envhealth@carrickfergus.org.

Antrim Borough Council Submission



Our Ref: DMCC/IS/MA

9 August 2011

Ms Anna Lo, MBE MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BT4 3XX

Dear Ms Lo

**Ref: Northern Ireland Assembly Committee for the Environment
Inquiry into the Management of Used Tyres in Northern Ireland**

Thank you for your letter of the 30th of June last in respect of the above. I would respond to the questions posed therein as follows:

- This Council does not encounter substantial problems with used tyres over the summer months, but this has not always been so.
- The problem which did exist prior to five years ago has improved significantly.
- Overall the burning of tyres has reduced dramatically.
- In 2006/7 Council revamped and reinvigorated a bonfire sub group which addressed, among other issues, the burning of tyres.
- Continued dialogue and consensual agreement with groups representing bonfires at the above sub group has largely prevented recurrence of any problems.
- The entire supply chain should be monitored by those engaged in and benefiting from the trade with for example a system of statutory returns to central authority indicating parity between numbers supplied and numbers properly disposed of, reused, recycled, exported etc. Penalties including fines, disqualification, seizure etc should be available in the event of non-compliance without valid cause. Encouragement/incentives should be provided for activities involving reuse, recycling and so forth. Such a system of regulation would involve minimum intrusion minimum cost and maximum compliance.

I would further advise that Antrim Borough Council is participating in a collective reply to your committee via Arc 21 and I include (over page) the information relating to Antrim Borough Council only in this regard.

Chief Executive - David McCammick, Antrim Civic Centre, 50 Stiles Way, Antrim BT41 2UB
T. 028 9446 3113 F. 028 9448 1324 Textphone. 028 9448 1343
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Director of Corporate and Regulatory Services
Catherine McFarland

Director of Development, Leisure and Borough Services
Geraldine Girvan

The Northern Ireland Assembly Committee for the Environment is holding an Inquiry into Used Tyre Disposal. The aim of the Inquiry is to examine the current approach to the management of used tyres in Northern Ireland. The Committee wishes to examine the current audit trail for managing tyres from purchase through to disposal, compare with approaches used elsewhere (GB /ROI) and make recommendations to enhance the transparency and robustness of the processes in Northern Ireland.

Question	Response
Current arrangements including costs for the disposal of used tyres produced by the Councils i.e. from Council vehicles	Tyres are purchased through local suppliers however; the Council are likely to sign up the ESPO Tyre Contract No 222 in the next few weeks. Disposal of old tyres is carried out by the supplier and Council pay the relevant disposal levy.
The number of used tyres produced by the Council and disposed of in the last year	The Council does not hold this information.
Current provision and arrangements including costs for the disposal of used tyres produced by householders excluding flytipped tyres. If the Council has no provision or arrangement please indicate accordingly	Council has no provision for the collection and disposal of used tyres.
The number of used tyres produced by householders excluding householders and disposed of by the Council in the last year	N/A
Current arrangements for the disposal of flytipped tyres (excluding bonfires) including costs	Current treatment/disposal facility – R4 Ltd, Seagoe Industrial Estate, Craigavon. Approx cost £1 per tyre.
The number of flytipped tyres (excluding bonfires) disposed by councils in the last year	2009 – 390 tyres 2010 – 360 tyres 2011 – 307 tyres to date

Current arrangements including costs to address the use of tyres in bonfires including any action taken this year	Bonfire sub-group meets throughout the year working towards responsible bonfire management. Traditional sites that satisfy criteria such as the exclusion of tyres can draw down funding to host community fun days. Total current annual budget of £30K allocated.
The number of tyres collected from bonfires by Councils this year and subsequently disposed of	None.
Comments on interaction with other agencies particularly the NIEA in respect of the monitoring and enforcement of the legal framework	Bonfire activities approached in partnership with PSNI, NIHE and NIFRS.
Any particular issues experienced by the Council	No further comment
Constructive comments and suggestions on improving the management of used tyres	No further comment

I trust you find the above information of assistance and should you require further details then please do contact me.

Yours sincerely



David McCammick
Chief Executive

Omagh District Council Submission



DANIEL McSORLEY Chief Executive



Your Ref:

Our Ref:

Date: 8th August 2011

Being dealt with by: Environmental Health Department

Email:

Anna Lo, MBE, MLA
 Chairperson, Committee for the Environment
 Environment Committee Office
 Room 245
 Parliament Buildings
 Ballymiscaw
 Stormont
 BT4 3XX

Dear Ms Lo

**NORTHERN IRELAND ASSEMBLY COMMITTEE FOR THE ENVIRONMENT
 INQUIRY INTO THE MANAGEMENT OF USED TYRES IN NORTHERN
 IRELAND**

I refer to your correspondence of 30th June 2011 and to the terms of reference for a proposed inquiry into how used tyres are managed in Northern Ireland.

I previously responded on behalf of Omagh District Council on 7th December 2010 (copy enclosed).

The Committee requested some further information on the inappropriate disposal of used tyres by posing a series of questions and these are considered and responded to as follows:

Does your council experience problems with used tyres over the summer months?

The Council does experience problems with the unauthorised (illegal) disposal of tyres primarily in bonfires which occur in the district. Generally there is one significant bonfire (July) and approximately five smaller scale bonfires in the district during the Halloween period.

Can you quantify the severity of the problem in terms of tyre numbers and/or weight?

No – The Council does not proactively record the number of tyres in bonfires. Generally visits may be made to known bonfire sites in the weeks/days running up to the actual date of lighting the bonfire. Contact would be necessary with other landowners eg Northern Ireland Housing Executive to elicit if any records are retained of tyres burned/removed from sites in their ownership.

GAEH Health Omagh\HE_Health & Safety\B01b Investigations\Bonfires\Response to NI Assembly re tyre disposal August 2011.doc

Has the problem got worse, stayed the same or increased in the last five years?

There has been an overall decrease in (a) number of bonfires and (b) number of tyres in bonfires in the district over the last five years.

Has the nature of the problem changed over the last 5 years (eg a shift from burning to dumping)?

I have spoken with the officer who deals with illegal fly tipping and he informs me that the large scale disposal of tyres has not taken place. Generally it is limited to occasional tyres being disposed of by householders. On one occasion a significant quantity of tyre tubes were dumped which were suspected of being disposed of by an unidentified commercial premises.

Generally the most significant issue is tyres being sourced and stored in the weeks prior to a bonfire and then emerging onto the actual bonfire at the final construction phase.

How have you addressed any problems to date?

Omagh District Council has formed a multi-agency group termed the Bonfires Working Group which comprises statutory agencies such as PSNI, NIFRS, representatives of departments within Omagh District Council (Environmental Health, Technical Services, Community Development) as well as other interested parties. This working group meets in the weeks prior to anticipated bonfires and deals with related issues which include the following:

- Administration of small grants to fund diversionary activities.
- Correspondence with and visits to significant tyre retailers to seek co-operation in securing tyres.
- Removal of bonfire materials and completed bonfires as deemed necessary in accordance with policy.
- Press releases requesting appropriate bonfire management and controls.
- Training sessions delivered by NIFRS/Council to advise of appropriate management of bonfires.
- Liaison with NIEA to support any contraventions of waste control legislation.
- Development of a policy for bonfires on Council property.
- Partner Council in Peace III funded Project ~ Burning Issue (Feb. 2011) which examined best practice in controlling bonfires and included reference to the presence of tyres in bonfires.



DANIEL McSORLEY Chief Executive



Your Ref:

Our Ref:

7th December 2010

Date:

Environmental Health Department

Being dealt with by:

Email:

Mr Cathal Boylan
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BT4 3XX

Dear Sir

SAFE DISPOSAL OF TYRES 2010

I refer to your correspondence of 18th October 2010 when you requested information on the disposal of tyres in the district.

I share the concern of the Northern Ireland Committee for the Environment on the illegal disposal of tyres.

You specifically requested observations in the district during Halloween 2010 and respond as follows:

- The number of bonfires in Omagh district has reduced year on year.
- There were three significant bonfires in Omagh town with a few smaller bonfires in some satellite villages.
- Unfortunately a number of tyres were present on all three bonfire sites in Omagh town. I cannot be specific on the number of tyres at the town bonfires (estimated 20-30 each). I am not in a position to provide any authoritative information on some of the smaller scale bonfires throughout the district.

Omagh District Council annually sends correspondence to major tyre retailers in the weeks prior to Halloween to remind them of legal responsibilities relating to appropriate disposal of tyres, enforcement powers available to the Northern Ireland Environment Agency (NIEA) and of waste control legislation (including duty of care).

I am aware that the PSNI similarly advise and/or visit significant tyre retailers to ensure storage arrangements are adequate and encourage business owners to report any unauthorised removal of tyres. You may be interested to note that a consultant's report (Peace III funded) on bonfires in the North-West is presently in draft form and will be

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published in the next few months. This report entitled 'Burning Issues' provides some survey information on where tyres are sourced for use in bonfires and outlines action plans for bonfire sites in the North West.

If you require any further information please do not hesitate to contact me.

Yours faithfully



Mr B Heywood
Chief Environmental Health Officer

Lisburn City Council Submission



LISBURN
CITY COUNCIL

Island Civic Centre, The Island, Lisburn, BT27 4RE Tel: 028 9280 9280
www.lisburncity.gov.uk

Norman Davidson *Chief Executive*
normand@lisburn.gov.uk

Ref: NOM

18 August 2011

Anna Lo, MBE, MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BT4 3XX

Dear Ms Lo

**RE: Northern Ireland Assembly Committee for the Environment Inquiry
into the management of Used Tyres in Northern Ireland**

I am writing with regards to your letter of 30 June 2011 to Norman Davidson relating to the above issue. I would like to take this opportunity to provide a response to your questions as follows:

Inappropriate disposal of used tyres can be a problem in the Lisburn City Council area especially around the July holiday period and early August in association with bonfires.

For example from one site alone in July 2011 over 300 car tyres were removed by the Council to prevent them being incorporated into a bonfire. Several sites also had smaller numbers of tyres that could not be removed in time to prevent them from being burnt. The problem has reduced over recent years in many cases however a few sites remain where the environmental and health messages regarding the dangers of burning tyres on bonfires is not getting through.

Incidents of large scale illegal dumping of tyres such as the 300+ tyres dumped in July 2011 are always passed through to the NIEA as the agency responsible for investigating and prosecuting illegal dumping. Unfortunately in this case the NIEA failed to react to the matter. This is often the case as there does not seem to be adequate resource available within the Agency to effectively investigate what are deemed to be smaller scale incidents of illegal dumping in the Northern Ireland context but which locally are considered very significant.



Colin McClintock
Director of Environmental Services
Deputy Director of Corporate Services
colinm@lisburn.gov.uk

Jim Rose
Director of Economic Services
jimr@lisburn.gov.uk



In order to try to prevent illegal dumping of used tyres Lisburn City Council offers recycling facilities for these items at Drumlough Civic Amenity site. For the financial year 2010/11 the following numbers of tyres were disposed of in Drumlough:

Car Tyres	-	2284
Light Truck Tyres	-	21
Truck Tyres	-	16

Recycling these items incurs a significant cost to the Council. In order to minimise the problems associated with used tyre illegal dumping and proper disposal of these items central government should give consideration to the following:

- Adequately resourcing NIEA to react to all illegal dumping incidents referred to them by local government or providing local government with the same powers as NIEA to address this issue locally. (This matter is being addressed in the current exercise to agree a framework to address flytipping.)
- Adequate policing of tyre depots to ensure all tyres are accounted for regarding proper disposal throughout the region.
- Working with garages and tyre fitters to ensure replacement tyre costs include taking old tyres and disposing of them properly.
- Working with the agriculture sector to ensure tyres used on site are properly disposed of.

I trust this is of assistance.

Yours sincerely,

Noeleen O'Malley
Acting Assistant Director of Environmental Services, Technical

Belfast City Council Submission

HEALTH AND ENVIRONMENTAL SERVICES DEPARTMENT

11 August 2011

Anna Lo, MBE, MLA
 Environment Committee Office
 Room 245
 Parliament Buildings
 Ballymiscaw
 Stormont
 BT4 3XX

17 AUG 2011



Dear Ms Lo

Ref. Northern Ireland Assembly Committee for the Environment Inquiry into the Management of Used Tyres in Northern Ireland

Thank you for your letter of 30 June in relation to the Assembly's Environment Committee's intentions to carry out an inquiry into how used tyres are managed in Northern Ireland.

Belfast City Council wishes to highlight that inappropriate disposal of tyres manifests in two problems for the Council, namely:

1. The use of tyres on bonfires at particular times of the year and;
2. The illegal dumping of tyres on an ongoing basis throughout the year.

BONFIRES

Belfast City Council experiences significant problems with used tyres for the purposes of burning of bonfires over the summer months: specifically during the traditional bonfire periods around 11/12th July and 8/9th August.

July

The council supports the expression of local culture and identity and, from this point of view, supports a bonfire management programme which funds local communities to organise festivals around the July period. Through the delivery of the bonfire management programme the council engages with local communities that wish to participate and, under the programme, stipulates strict criteria that bonfire sites must meet. This criterion includes no burning of toxic material/tyres.

While in 2011, in excess of 50 bonfire sites across the city signed up to the bonfire management programme, there are still a number of groups organising bonfires which do not currently wish to participate on the programme: these tend to be the bonfire sites where toxic material and tyres continue to be burned.

It is difficult to quantify precisely the severity of the problem in terms of numbers of tyres in total that are burned on the various fires across the city. A conservative estimate is that the total number of tyres burned may be several thousand. Indeed in 2011, at one site in East Belfast, council staff counted in excess of 300 tyres at the site. While there are signs that the problem is stabilising, there are still a number of problem areas.

August

As part of the programme set up to support the expression of local culture, this programme also funds festivals and diversionary activities during August but not the construction of [August] bonfires, due to the views expressed by community and elected representatives: from this point of view there wouldn't be bonfires sites on any management programme, and as such toxic material such as tyres, tend to be used. In 2011 a number of bonfire sites were observed to have tyres located on them as part of the material to be burned.

Belfast City Council action

In addition to the bonfire management programme previously mentioned, the council established an internal Bonfire Officer Group in preparation for the 2011 bonfire season to consider all of the issues typically raised around bonfires: incidents of antisocial behaviour; burning of tyres on bonfires; illegal dumping of material on council property etc. The aim of the group was to improve council service planning and operational response to bonfire issues in a coordinated and joined up manner.

As part of the work on the internal officer group, the council wrote to tyre distributors across the city in an attempt to keep the environmental impact of bonfires to a minimum by requesting that all tyre retailers and road hauliers to support their local community and refrain from supplying used tyres to bonfires. A letter has also been sent to the Environmental Crime Unit of the Northern Ireland Environment Agency emphasising how they could help the situation by ensuring that businesses handling tyres dispose of their tyres in a legal manner. *A copy of the letters sent and the response from NIEA are enclosed.*

Illegal dumping of tyres

In relation to the issue of illegally dumped tyres, the council records material brought to the council's Waste Transfer Station. Council records for the last financial year, April 2010 to March 2011, indicate that 1416 illegally dumped tyres (which equates to 12.5 tonnes) were brought to the council's Waste Transfer station for disposal. With the combination of tyres illegally dumped throughout the year and tyres gathered for the purpose of burning on bonfires, we believe there is an issue with the management of the use of tyres.

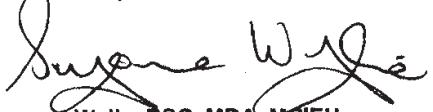
One significant measure that could be taken by central government to reduce the problem would be for the NIEA to devote some resources to the enforcement of the Controlled Waste (Duty of Care) Regulations (NI) 2002 in relation to used tyres. Over the last number of years the NIEA have indicated to the Council that they have not had the resources to undertake a proactive enforcement campaign to tackle this issue.

The introduction of The Waste and Contaminated Land (Amendment) Act (NI) 2011 early next year will give councils and the NIEA parallel powers to deal with the enforcement of illegally deposited waste. The Department of Environment (DoE) has indicated that detailed operational arrangements must be in place to define the respective roles and responsibilities of councils and the NIEA in dealing with fly-tipped waste. The issue of tyre management needs to be included as part of any operational agreement between the councils and the DoE.

The council believes that a proactive enforcement programme must be put in place in an attempt to curtail the amount of tyres that appear to be in circulation for use on bonfires and to reduce the quantities of illegally dumped tyres that require to be disposed off at an additional cost to the Council.

I trust that the above responses to the questions raised in your letter will assist you and your Committee in the inquiry.

Yours sincerely



Suzanne Wylie, BSC, MBA, MCIEH

Manager of Health and Environmental Services

Encs

Belfast City Council, Health and Environmental Services Department
The Cecil Ward Building, 4-10 Linenhall Street, Belfast BT2 8BP
Tel: 028 9032 0202 Textphone : 028 9027 0405 Fax: 028 9024 0396
Email : wwwes@belfastcity.gov.uk

Parks and Leisure Department

Your ref:

Our ref:

Date: 22 June 2011

[name and address]

Dear Sir/Madam,

We have noted that a significant number of lorry tyres have been collected as bonfire material and deposited in our parks. As you can appreciate, the council receives a number of complaints regarding this activity. The vast majority of complaints received in the lead-up to 11 July and 8 August are from ordinary residents who have concerns regarding the use of tyres on bonfires.

Waste tyres are extremely combustible and produce thick clouds of sulphurous black smoke containing up to 50 toxic compounds and gases.

The clouds of soot, ash and chemicals pose a serious threat:

- to the health of the elderly;
- the physical and psychological development of young and unborn infants; and
- the environment.

Not to mention the additional damage caused by soot on property such as garden furniture and outdoor toys.

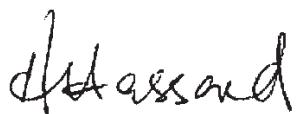
We have requested the Northern Ireland Environment Agency's Environmental Crime Unit to give the issue of dumped tyres their utmost attention over the coming weeks and months.

Under the Waste and contaminated land (NI) Order 1997, the consequences for being identified or involved in this pursuit could result in a £50000 fine and/or a 2-year prison sentence.

**Belfast City Council, Parks and Leisure Department,
Adelaide Exchange, 24-26 Adelaide Street, Belfast, BT2 8GD
Tel: 028 9032 0202 Textphone: 028 9027 0405 Fax: 028 9023 7080
Email: parks&leisure@belfastcity.gov.uk**

Therefore, in an attempt to keep the environmental impact of bonfires to a minimum, the council is requesting that all tyre retailers and road haulers support their local community and refrain from supplying used tyres to bonfires this year.

Yours faithfully



Andrew Hassard
Director of Parks and Leisure
DDI: 90270327
hassarda@belfastcity.gov.uk

Parks and Leisure Department

Your ref:

Our ref:

Date: 6 June 2011

Mr Dave Foster
Director of Environmental Protection
Northern Ireland Environment Agency
Klondyke Building
Cromac Avenue
Gasworks Business Park
Lower Ormeau Road
Belfast
BT7 2JA.

Dear Mr Foster,

Re: Belfast City Council Bonfire Programme

Over the past five years Belfast City Council has been running a bonfire programme to help improve bonfire management across the city. In particular the programme has proven successful in reducing the burning of toxic material such as tyres on bonfires. However, there is further work required to tackle bonfire sites outside of the programme that continue to accumulate tyres for the specific purpose of burning.

Through our engagement with communities on bonfire matters, the issue of the burning of tyres continues to be raised with us as a council. In addition, the vast majority of complaints received by the council in the lead-up to 11 July and 8 August are in relation to the use of tyres on bonfires.

Belfast City Council will continue to deliver the bonfire programme in partnership with external agencies, including the NIEA. In addition we are looking at hotspot sites that are typically known to accumulate tyres for the purposes of burning. Within the 42 sites that participated in the council's bonfire programme in 2010, just one of these sites used tyres at their bonfire. However, in the same year there were a further 35 bonfires outside of the bonfire management programme, many of which used tyres. It is these bonfires outside of the programme that are of concern to the council this coming summer.

Belfast City Council, Parks and Leisure Department,
Adelaide Exchange, 24-26 Adelaide Street, Belfast, BT2 8GD
Tel: 028 9032 0202 Textphone: 028 9027 0405 Fax: 028 9023 7080
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While I am aware that the resources of the Environmental Crime Unit within the NIEA are limited, the council feels that the area of tackling the illegal dumping of tyres on bonfire sites is one that needs attention at this time of the year. Already we have seen upwards of 200 tyres dumped at a council park in Belfast.

To pre-empt this activity this coming summer, the council is proposing to write to all tyre distributors in the city to inform them of their legal obligations in relation to the proper disposal of tyres. Within this letter, a copy of which is attached for your information, we will be informing them of the Environmental Crime Unit's statutory obligations in relation to dumping of tyres. We are also proposing to inform residents and community groups of the Crime Unit's details and encourage them to report such activity.

While the council has no statutory obligations in this regard, we are seeking to support ordinary residents to report such actions to the NIEA and we hope that such reports will command the required resources and time in order to eradicate this activity.

I look forward to hearing from you.

Yours sincerely

Andrew Hassard
Director of Parks and Leisure
DDI: 90270327
hassarda@belfastcity.gov.uk



Northern Ireland
Environment
Agency

Klondyke Building
Cromac Avenue
Gaworks Business Park
Belfast
BT7 2JA

Andrew Hassard
Director of Parks and Leisure
Belfast City Council
Adelaide Exchange
24-26 Adelaide Street

Dear Mr Hassard

23 June 2011

Tyre Deposition on Bonfires

Thank you for your letter to Mr Foster to which I have been asked to reply – the Environmental Crime Unit (ECU) has been involved with Belfast City Council's inter-agency bonfire group for several years.

You raise two main issues and I hope the following is helpful:

The ECU deals with serious and persistent offending – often involving breaches of waste legislation and often involving serious and organised criminality. You are therefore correct when you state that the ECU resources are limited and our focus is by necessity on serious cases. We will continue to devote a limited resource to investigate instances where evidence is available of significant criminal offending in relation to the illegal deposit of tyres. NIEA as a whole is limited in its ability to carry out inspections of producers of waste tyres. We are not planning to carry out any such inspections in the Belfast area this year.

I note that you are intending to encourage the public and community groups to contact the ECU. In previous years the ECU has been swamped by information of negligible value and therefore should you still feel this is appropriate I would request that the following information is given:

1. NIEA will only investigate where there is **evidence** of the identity of the source of tyres or other waste material of concern. Useful evidence includes the registration marks and descriptions of vehicles, identity of those dumping tyres or selling/giving them to bonfire organisers.



An Agency within the Department of the
Environment
www.doeni.gov.uk



INVESTOR IN PEOPLE

2. We will not be responding by means of physical inspection of sites, but will accept witness statements from individuals and your own staff as a basis for further investigation. Photographs are also useful with statements.
3. We will be unable to investigate incidences where we are given information but those reporting it are unwilling to give a formal witness statement.
4. We will not investigate reports of those making small deposits of waste tyres on bonfire or other sites – our focus is on commercial sources.

Thank you for enclosing your suggested letter to waste tyre producing businesses. Your letter states that they will be informed of the 'ECU statutory obligations in relation to the dumping of tyres", but I do not see reference to this in the copy you have enclosed.

Might I suggest that replacing the last paragraph with "You will be aware that you have a legal obligation to ensure all waste from your business is handed to an authorised person and disposed of legally. Failure to do this involves a range of criminal offences, many of which are able to be heard in the Crown Court with the potential of unlimited fines and a 2 year prison sentence."

It may also be worth advising businesses to contact the PSNI if they have waste tyres taken from premises or feel under pressure to allow them to be taken.

Yours sincerely



Anne Blacker
Environmental Crime Unit

cc – Dave Foster, Eugene Kelly – NIEA
Denis McMahon, EPD
David Robinson, Belfast City Council

Northern Ireland Environment Link Submission

Assembly Committee for the Environment Inquiry into Used Tyre Disposal

Comments by
Northern Ireland Environment Link

10 August 2011

Northern Ireland Environment Link (NIEL) is the networking and forum body for non-statutory organisations concerned with the environment of Northern Ireland. Its 56 Full Members represent over 90,000 individuals, 262 subsidiary groups, have an annual turnover of £70 million and manage over 314,000 acres of land. Members are involved in environmental issues of all types and at all levels from the local community to the global environment. NIEL brings together a wide range of knowledge, experience and expertise which can be used to help develop policy, practice and implementation across a wide range of environmental fields.

These comments are agreed by Members, but some members may be providing independent comments as well. If you would like to discuss these comments further we would be delighted to do so.

Prof Sue Christie, Director
Northern Ireland Environment Link
89 Loopland Drive
Belfast, BT6 9DW

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E: Sue@nienvironmentlink.org
W: www.nienvironmentlink.org

Northern Ireland Environment Link is a Company limited by guarantee No NI034988 and a Charity registered with Inland Revenue No XR19598.

Northern Ireland Environment Link heartily welcomes the Committee's inquiry into this important problem. The Terms of Reference seem very comprehensive and address the important aspects to provide the necessary background to enable recommendations for future action.

The problem of illegal disposal of tyres is particularly severe in Northern Ireland, especially the use of used tyres in seasonal bonfires. The environmental aspects of burning the tyres are particularly severe and we strongly support both existing and future mechanisms to discourage their use in this way.

There are many positive uses for end of life tyres, and along with other aspects of recycling and reuse, market mechanisms should be used to encourage businesses to acquire tyres and reprocess them to provide useful and valuable products. Stimulating markets for recycled goods is an excellent way to increase the value of the raw materials and thus encourage their proper management.

Aside from these general comments and support for the inquiry NIEL does not have access to any specific data useful to this work.

Belfast City Council - 13 Oct 2011



Belfast City Council

Report to:	Health and Environmental Services Committee
Subject:	The impact of air quality upon public health in the vicinity of arterial routes.
Date:	7 September 2011
Reporting Officer:	Mrs. Siobhan Toland, Head of Environmental Health (ext. 3281)
Contact Officer:	Mr. Stephen Leonard, Environmental Protection Unit Manager (ext. 3312)

Relevant Background Information

At the Committee meeting of 3 August 2011, members considered a consultation response to DEFRA concerning an application to the EC for a time extension for achieving nitrogen dioxide health-based air quality standards. Members will recall that the council has already declared four air quality management areas (AQMAs) across the city for exceedances of nitrogen dioxide and particulate matter air quality standards. These AQMAs encompass arterial routes and therefore the principal source of pollution has been identified as road transport.

In considering the consultation response, members requested that a subsequent paper be brought to Committee outlining the health effects of nitrogen dioxide, identifying whether there is an increased incidence of respiratory disease within the AQMAs, characterising air pollution from burning tyres on bonfires and summarising the legislative controls relating to tyre dumping.

Key Issues.

Health effects of nitrogen dioxide and linkages to respiratory disease.

Combustion in air produces oxides of nitrogen. Nitrogen dioxide (NO_2) and nitric oxide (NO) are both oxides of nitrogen and collectively are referred to as NOx. However, it is nitrogen dioxide that is associated with adverse human health effects. Presently, road transport accounts for about half of total UK emissions of NOx, with further major contributions from the electricity supply industry and the industrial and commercial sectors.

Nitric oxide forms the principal component of emitted NOx, although direct emissions of nitrogen dioxide from diesel-powered vehicles can be locally significant. In addition, nitric oxide can be converted into nitrogen dioxide in the atmosphere, through a complex series of photochemical reactions involving ozone (O_3).

In terms of adverse health effects from NO_2 , at high concentrations it acts as an irritant causing inflammation of the airways and affecting immune cells in the lungs, leading to increased susceptibility to respiratory infections. Evidence suggests that NO_2 can increase the sensitivity of asthmatics to allergens and increase the likelihood of asthma attacks. Longer-term exposure increases the likelihood of respiratory illnesses in children. Accordingly, government has established an annual mean air quality objective for NO_2 of $40 \mu\text{gm}^{-3}$. In terms of the Belfast AQMAs, in 2010 the annual mean along the M1 Motorway and Westlink was up to $66 \mu\text{gm}^{-3}$, $48 \mu\text{gm}^{-3}$ on the Upper Newtownards Road, $50 \mu\text{gm}^{-3}$ at Short Strand and up to $35 \mu\text{gm}^{-3}$ along the Ormeau Road.

Referring to DHSSPS data for elective (scheduled), emergency and other respiratory hospital admissions, during 2009/2010 there were 1,202 elective admissions, 3,389 emergency admissions and 34 non-specific admissions across Belfast. A detailed graphical representation of this data is presented in appendix A. Considering admission data by electoral ward, the highest levels of elective admissions relate to the Falls Park, Glen Road, Glencolin, Ladybrook, Legoniel, Shaftesbury and Upper Springfield wards. The highest levels of emergency admissions came from the Ardoyne, Cherryvalley, Crumlin, Falls, Fortwilliam, New Lodge, Shaftesbury, Shankill and Sydenham wards. The highest levels of other respiratory related admissions were from the Ardoyne, Beechmount, Bloomfield, Shaftesbury and Water Works wards.

Although the Falls and Shaftesbury electoral wards are adjacent to the M1 Motorway / Westlink AQMA and the Sydenham ward abuts the Sydenham by-pass, it is unclear whether this admission data supports a direct causal link between road traffic pollution and incidence of respiratory diseases.

Key Issues contd.

In addition, health practitioners have concluded that there is no single cause of respiratory disease but that environmental and lifestyle factors including diet, exposure to smoking and genetic makeup are all suspected of being predominant causes.

Northern Ireland asthma data.

Asthma UK reports that 146,000 adults and 36,000 children in Northern Ireland are presently receiving treatment for asthma. The Committee on the Medical Effects of Air Pollutants (COMEAP) has considered the incidence of asthma in the UK and the potential linkages to ambient air pollution. In November 2010, it concluded that:

'Evidence from studies on traffic-related air pollution suggests that it is possible that air pollution plays a part in the induction of asthma in some individuals who live near busy roads, particularly roads carrying high numbers of heavy goods vehicles.'

'The contribution of exposure to air pollutants to the induction of asthma in those in whom it plays a part is likely to be small in comparison with those from other contributory factors. The proportion of the population so affected is also likely to be small.'

Accordingly, COMEAP accepts that pollution from road traffic can cause asthma in locations where there is a high proportion of HGVs within the vehicle fleet. Members will be aware that in its response to DEFRA, the council called for greater research into the Belfast fleet composition in order to inform future Air Quality Action planning.

Air pollution associated with burning waste tyres.

Generally, when tyres are burnt in uncontrolled conditions, such as on bonfires, there is potential for a range of pollutants to be emitted to atmosphere. These include common pollutants such as carbon monoxide (CO), sulphur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOCs) and particulate matter (PM₁₀). Other more toxic pollutants that can be emitted include polycyclic aromatic hydrocarbons (PAHs), dioxins, furans, hydrogen chloride, benzene, polychlorinated biphenyls (PCBs) and heavy metals that were involved in the manufacturing process.

Impact of bonfires on ambient air quality.

Belfast City Council operates monitoring equipment across the city in order to measure levels of air pollution in relevant locations including where people live. One such example is in east Belfast. By considering historical ambient monitoring data for this location around the 12 July, it is possible to characterise the health impact of bonfires. In the run up to the 11 July, ambient levels of particles are typically around 10 µgm⁻³, however, historical levels have been shown to exceed 320 µgm⁻³ during the hours surrounding midnight when bonfires are alight. This is typical of combustion at relatively low temperatures and of the burn cycle. Levels tend to decline through the night as the bonfires extinguish and typically return to normal by the next morning. However, these acute levels can also expose members of the public in the vicinity of the bonfire and further afield to toxic pollutants such as PAHs, etc. that are entrained in inhaled particles.

Two health-based standards have been established for particulate matter; a daily and an annual mean. The above-mentioned levels would likely give rise to a significant exceedence of the daily mean but not contribute appreciably to the annual mean. It should be noted that the health impacts for a range of other ambient pollutants, including some heavy metals and PAHs, are also assessed on an annual basis. For that reason, these standards do not adequately reflect transient high pollution associated with bonfires and tyre burning. Further detailed research would have to be undertaken by government in order to characterise the health effects associated with exposure to these acute concentrations.

Other adverse Impacts associated with bonfires.

Other more general adverse impacts associated with bonfires can include illegal dumping of waste, scavenging, visual impact, damage to property through poor siting, health impacts of emissions and the site clean up. Cleaning up a bonfire site can involve dealing with soil that has been contaminated by toxic pollutants from the bonfire. In addition, runoffs from water used to control a bonfire can cause pollution to enter nearby watercourses.

Legislation relating to tyre dumping.

In accordance with Article 5(a) of the Landfill Directive, the Landfill Regulations (Northern Ireland) 2003 prohibit the landfilling of whole used tyres except when they are to be used as an engineering material, they are bicycle tyres or they have an outside diameter greater than 140 cm. Landfilled tyres can lead to landfill fires, they tend to rise to the landfill surface thereby effecting settlement and the integrity of capping and the impact of organic chemicals leaching from the tyres is not well understood.

Key Issues contd.

Accordingly, duty of care regulations have been introduced, which mean that businesses handling used tyres have a legal responsibility to ensure they are disposed of properly. At present, responsibility for enforcement of this duty of care lies solely with the Northern Ireland Environment Agency, however, Article 5 of the forthcoming Waste Act 2011 will also make duty of care powers available to councils. This legislation is scheduled to come into force next year and is subject to the introduction of a 'fly-tipping protocol', which will define the thresholds of dumped waste to be investigated by councils and the NIEA respectively.

Resource Implications

Financial.

N/A

Human Resources.

N/A

Asset and Other Implications.

N/A

Recommendations

The Committee is invited to note the attached information in relation to air quality and burning of tyres. Members are advised that an additional paper can be provided to Committee once a DEFRA response has been received concerning the outcome of the European Commission nitrogen dioxide time extension application for the Belfast Metropolitan Urban Area.

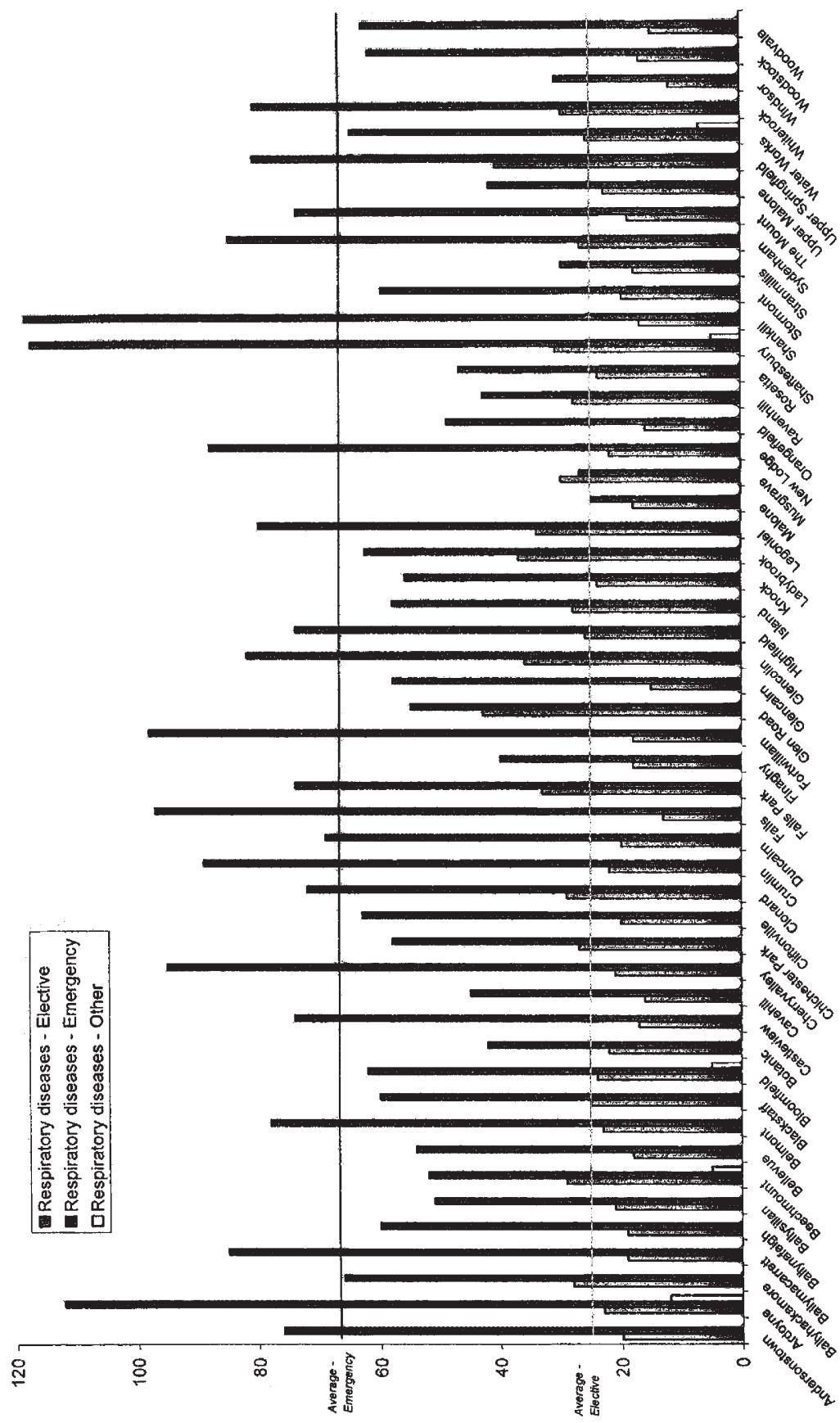
Key to Abbreviations

AQMA	- air quality management area
COMEAP	- Committee on the Medical Effects of Air Pollutants.
DEFRA	- Department for Environment, Food and Rural Affairs.
DHSSPS	- Department of Health, Social Services and Public Safety
PAH	- polycyclic aromatic hydrocarbons.
VOC	- volatile organic compounds.

Documents Attached

Appendix A – DHSSPS incidence of elective, emergency and other respiratory diseases by 1992 electoral wards for 2009 / 2010 period.

Appendix A – DHSSPS incidence of elective, emergency and other respiratory diseases by 1992 electoral wards for 2009 / 2010 period.



Ulster Farmers Union Submission



**ULSTER
FARMERS'
UNION**

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FROM THE PRESIDENT

The Committee for the Environment,
Parliament Buildings,
Stormont Estate,
Belfast,
BT4 3XX

14th September 2011

To: The Environment Committee

Environment Committee Inquiry into Used Tyre Disposal

Thank you for the opportunity to comment as part of the above inquiry. The UFU have several points to make in relation to a number of the specific terms of references of the Inquiry.

- Estimate the number of used tyres arising annually in Northern Ireland

We believe that the only mechanism to do this is by consulting with all tyre distributors and asking for a record of all new tyres sold in 2010. These tyres would have been replacing old tyres thus giving an estimate of the numbers of used tyres.

- Critically examine the current audit trail for managing tyres from purchase through to disposal and establish key responsibilities at critical stages
- Examine the legal framework for the collection, storage and disposal of used tyres and consider how this is monitored and enforced by the Northern Ireland Environment Agency

Although most of the responsibility will lie with the tyre distributors, an estimated small percentage of used tyres remain on farms covering silos. These tyres are covered under Duty of Care

Established 1918
Clarke Black, Chief Executive

Regulations which applies to all businesses handling tyres making them legally responsible to ensure waste tyres are disposed of legally. This requires farmers to keep storage areas secure so that tyres may not be removed by unauthorised individuals and to use registered carriers to remove/dispose of tyres. Farmers must be able to produce waste transfer notes to document removal of tyres from premises showing a legal disposal route Fines for breaches in the Regulations can be over £20,000.

We consider the legislative requirements covering used tyres on farms to be sufficient and operating effectively. We would not like to see any enhanced legislation covering tyres on farm as we would consider this excessively bureaucratic.

One issue that we would like to raise regarding the disposal of tyres on farms would be the actual means of disposal. Registered carriers to remove tyres are hard to find and those that do exist tend to be expensive. For a farmer to dispose of a car tyre it can cost about 90p but farmers may have hundreds of these to remove. The UFU would suggest that the NIEA compile and display on their website, similar to what exists for registered removers of asbestos, a list of all registered tyre carriers so that farmers could price around more easily.

- Establish the extent of historical stockpiles of used tyres in NI and consider how these could be incorporated into the established process for managing used tyres

Old tyres are still actively used on farms for activities such as silage clamps and all fall under Duty of Care Regulations. So when these tyres are no longer required they must be disposed of in the correct manner.

- Establish the potential for the development of an environmentally sound, economically viable, and self-sustaining end-use market in NI and make recommendations accordingly (this would include consideration of alternative uses for used tyres)

The UFU are aware there is an increasing amount of uses for used tyres in Northern Ireland. It is important that these types of enterprises are encouraged and supported. The UFU have always highlighted that there are barriers to achieving a competitive waste industry in Northern Ireland such as planning, banks etc. By helping to nurture a competitive waste industry that reinvents and makes use of waste streams such as used tyres, we help make the process cheaper for all involved in the waste chain.

- Make recommendations to enhance the transparency and robustness of the processes that underpin the management of used tyres in NI

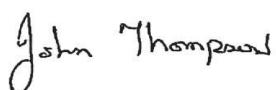
This is an issue for the manufacturers and collectors to comment on.

In conclusion, with respect to old tyres used on farms, the UFU believe that these are already appropriately regulated for and would not require any enhanced measures.

We believe that government should instead focus on developing the end market so that it will become economically advantageous for all used tyres to enter this route for disposal.

Should you wish to clarify any points raised in this response, please do not hesitate to get in touch.

Yours sincerely,



John Thompson

SWaMP2008 Submission



SWaMP2008

Southern Waste Management Partnership

Omagh Enterprise Company Ltd
Great Northern Road
Omagh
County Tyrone
BT78 5LU

Telephone 028 8224 9494
e-mail grahambyrne@swamp2008.org.uk

Committee Clerk,
Committee for the Environment,
Room 245,
Parliament Buildings,
Ballymiscaw,
Stormont,
Belfast
BT4 3XX

16th September 2011

Dear Sir/Madam,

**RE: EVIDENCE FOR THE COMMITTEE FOR THE ENVIRONMENT'S
INQUIRY INTO USED TYRE DISPOSAL**

1. INTRODUCTION

- 1.1** This response has been prepared on behalf of the eight constituent councils of the Southern Waste Management Partnership (SWaMP2008) listed below; following your call for evidence on the Inquiry into Used Tyre Disposal in Northern Ireland.

Armagh City & District Council
Banbridge District Council
Cookstown District Council
Craigavon Borough Council
Dungannon & South Tyrone Borough Council
Fermanagh District Council
Newry & Mourne District Council
Omagh District Council

Individual member councils within SWaMP2008 may also make their own separate responses.

- 1.2 SWaMP2008 welcomes the opportunity to provide evidence to the Committee for the Environment's Inquiry into used tyre disposal in Northern Ireland.
- 1.3 More specific comments relating to the full range of issues highlighted for consideration are detailed in 2, below:

2. ISSUES FOR CONSIDERATION

2.1 Estimate the number of used tyres arising annually in Northern Ireland

The following table shows the number of different types of tyres collected and recycled by constituent Councils of SWaMP2008 from 01/06/04 – 30/06/09

Description	Armagh	Banbridge	Cookstown	Craigavon	Dungannon	Fermanagh	Newry	Omagh	SWaMP2008
17.5" Truck	18	97	175	130		144	296	7	867
19.5" Truck	14	15	1	39		20	25	2	116
22.5" Truck	163	113	60	729		221	666	43	1995
385/65 Truck	82	17	11	25		53	202	10	400
Car	1247	10713	20347	1680	120	5283	19099	178	58667
Earthmover	2					3	2	3	10
Forklift		6		4		5	1		16
Forklift Solid				4			13		17
Rim removal – car	23	2021	3	374	3	465	2329	6	5224
Tractor – Large	16	59		7		114	113	5	314
Tractor – Small	3	13		1		5	23		45
Rim removal – truck	6	4		3		22	44	3	82
Tubes	3	139				24	51		217

The overall cost of treating these tyres from 01/06/04 – 30/06/09 was £88,527 and cost SWaMP2008 constituent Councils £33,174 in 2009.

2.2 Compare the NI approach to managing used tyres with other approaches e.g. Producer Responsibility, Tax system etc.

As all used tyres are now retained by tyre suppliers, and the cost of casings disposal passed on to the motorist, very few tyres are now brought to Council facilities, as a result of this, however as the table above highlights the majority of tyres sent for recycling are as a result of flytipping incidents.

SWaMP2008 previously requested that the Department introduce producer responsibility for tyres under Article 8 of the revised Waste Framework Directive (Directive 2008/98/EC)

The industry should be given the overall responsibility for managing tyres that are flytipped or dumped illegally. This would reduce the need for public bodies to pay for their management and could make more resources available for additional recycling initiatives.

2.3 Establish the extent of historical stockpiles of used tyres in NI and consider how these could be incorporated into the established process for managing used tyres

There may be a case in rural areas that quantities of disused tyres still exist, mainly due to agricultural activities, such as the use of tyres to seal silage pits etc. With more and more farmers using round silage bale methods for the collection of grass, the need for these tyres no longer exist. Therefore, there may be cases where illegal disposal of tyres will continue, if some agreement is not made between the producers and the UFU.

2.4 Examine the legal framework for the collection, storage and disposal of used tyres and consider how this is monitored and enforced by the Northern Ireland Environment Agency

SWaMP2008 is concerned as to the NEA's ability to check the validity of WML for tyre reprocessors in Northern Ireland, NIEA do not provide a public register of suspension notices of firm which are in breach of their WML, SWaMP2008 propose to request that this is provided by the NIEA in the future in a timely manner and that information is published in the same way as the licence register. However both these registers need to be kept up-to-date and published at least on a weekly basis in order to ensure that Councils are not sending used tyres to unlicensed reprocessors.

If we can be of any further assistance please do not hesitate to contact us.

Yours faithfully,



Graham Byrne, Chief Officer, SWaMP2008

Larne Borough Council Submission



Ref: 2011/024/PT/PH

14 September 2011

Ms Anna Lo, MBE, MLA
Chairperson, Committee for the Environment
Room 245 Parliament Buildings
Ballymiscaw
Stormont
Belfast BT4 3XX

Dear Ms Lo

**Northern Ireland Assembly Committee for the Environment
Inquiry into the Management of Used Tyres in Northern Ireland**

Larne Council welcomes the desire and commitment of the Environment Committee to deal with the management of used tyres and as a Council we support a more robust, co-ordinated regional response to this issue. On collating your findings we would very much like to receive a copy of the report and offer our support in adopting effective actions which may already be employed by other Councils to help contribute to dealing with this issue. In relation to the specific questions our response is attached.

Yours sincerely

A handwritten signature in black ink that reads "Philip Thompson".

Philip Thompson
Director of Environmental Services

Enc.

Larne Borough Council's Response to Northern Ireland Assembly Committee for the Environment Inquiry into the Management of Used Tyres in Northern Ireland

1.	Does your Council experience problems with used tyres over the summer months?	Larne Council experience problems with used tyres throughout the year but the problem peaks around the summer months. Throughout the year the Council, on a weekly basis, are removing tyres dumped on rural roads. More large scale dumping takes place around the bonfire season and occasionally on isolated rural locations.
2.	Can you identify the severity of the problem in terms of tyre numbers and/or weight?	<p>2009 16.9 tonnes (7 tonnes of this during Jul/Aug)</p> <p>2010 6.52 tonnes (2 tonnes during Jul/Aug) (6.52 tonnes = 325 passenger tyres (99p), 70 truck/lorry tyres (£6) = £745)</p> <p>2011 7.8 tonnes up to 19/7/11 (3.2 tonnes during July) This year from bonfire sites we collected on request 260 from Ballycarry 30 from Seacourt 400 from Millbrook Disposal Cost (99p per tyre) = £690 The above figures relate only to tyres that Council have collected on road verges and have removed from bonfires on request and does not quantify the tyres that have been burnt on bonfires which are outside the scope of Council Bonfire arrangements.</p>
3.	Has the problem got worse, stayed the same or increased in the last 5 years?	<p>In terms of bonfires the issue of tyres has decreased. Out of 10 bonfire sites during July only 2 ended up burning tyres.</p> <p>In terms of indiscriminate small scale dumping along side of rural roads the problem seems to be increasing.</p>

Cookstown District Council Submission



**Cookstown
DISTRICT COUNCIL**

**COMHAIRLE CHEANTAR NA COIRRE CRÍOCHAÍ
DISTRICT COUNCIL O COOKSTOWN**

M.J. McGuckin, B.Sc., M.I.C.E., F.I.H.T.
Clerk/Chief Executive
mjm@cookstown.gov.uk

M G Kelso

PC/gj

13 September 2011

Mrs A Lo MBE, MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont
BELFAST
BT4 3XX

Dear Mrs Lo

RE: INQUIRY INTO THE MANAGEMENT OF USED TYRES IN NORTHERN IRELAND

Thank you for correspondence received 4th July 2011, in regard to the Committee's inquiry into the management of used tyres and the problems caused by same. To facilitate this response I will respond in terms of the questions that have been posed.

Q1. Does your Council experience problems with used tyres over the summer months?

Cookstown District Council has had occasion to deal with incidents of fly-tipping of tyres throughout the calendar year. These incidents have varied in scale from a few tyres discarded at the side of the road, to incidents where in excess of 100 tyres had been deposited on a river bank adjacent to a roadside lay-by.

In addition, the Council has had to deal with a number of tyres being burned on celebratory bonfires during the month of July, August and October. Given the nature of these events, it is difficult to quantify the number of tyres involved.

Q2. Can you quantify the severity of the problem in terms of tyre numbers and/or weight?

As above.

Q3. Has the problem got worse, stayed the same or increased in the last 5 years?

Examination of our complaint records would suggest that the level of fly-tipping of used tyres has remained at a fairly consistent level, both in regards to the quantity and volume of tyres burned on bonfires and those that have been illegally deposited / fly-tipped within close proximity of traffic routes.

- Q4. Has the nature of the problem changed over the last 5 years? (eg. a shift from burning to dumping).

As above.

- Q5. Have you addressed any problems to date? (eg. within Council / NIEA).

As part of our ongoing programme, in all incidents of fly-tipping of tyres, we have advised NIEA of these issues and requested their assistance to address same. Unfortunately there has been little evidence of overall improvement in the actions taken to date to address these problems.

The Council however, has been pro-active in visiting its local tyres fitters and distributors, with a view to ensuring that appropriate control arrangements are in place for the storage and disposal of used tyres. Given the continued fly-tipping problem, it would appear however, that some tyre fitters are not complying with the storage and disposal arrangements required for waste products of this nature.

- Q6. Have you taken any measures to stop any problems reoccurring?

As above.

- Q7. Have you any suggestions for measures that could be taken at central government level to reduce the problem?

Perhaps it is evidence that a more robust approach may need to be taken in regard to the checking and validation of the collection and disposal of used tyres at tyre fitting establishments. It would also be beneficial if some form of unique marking or identification system could be introduced to enable each commercial tyre undertaking to be clearly identified in the event of further incidents of fly-tipping or illegal disposal.

I trust you find this information of some assistance.

If you require anything further, please do not hesitate to contact me.

Yours sincerely



M G KELSO
Director of Environmental Health

Arc21 Submission



FAO Mr Sean McCann
Northern Ireland Assembly
Committee for the Environment
Environment Committee Office
Room 247
Parliament Buildings
Belfast
BT4 3XX

16th September 2011 .

Dear Mr McCann

Inquiry Into Used Tyre Disposal

I refer to your e-mail which, on behalf of the Committee, invites views from arc21 in connection with the above.

arc21 understand that the Committee have invited views from individual Councils and that Councils will be responding accordingly. Notwithstanding these responses, arc21 welcome this opportunity to contribute to this issue, particularly from a strategic perspective.

In summary, arc21 believe that under the current regime, greater priority to regulatory activities should be applied to this issue by the NIEA. In addition, there is scope for an enhancement of liaison between all regulatory agencies primarily at a regional level which could also assist and add support to local liaison efforts. arc21 also believe that the application of a system designed around producer responsibility principles is worthy of consideration and should be the subject of further work to identify detailed options.

It is important to recognise that Councils by virtue of the nature of their operations are producers of waste tyres and they ensure these waste tyres are properly collected, managed and treated. This is undertaken via properly procured arrangements with various private sector service providers. There is no evidence to suggest any significant deficit in private sector provision in regard. However, it is acknowledged this is a niche market which will have limited capacity. However it is important to ensure a divergence of end usage for waste tyres to protect against any potential for undue escalation in costs as well as improving environmental performance. Encouragement must be given to the private sector to establish innovative end markets.

It is widely recognised that Northern Ireland is heavily reliant on the road transport network and an associated consequence of this reliance is the management of a significant number of used car tyres. Waste management practices associated with used tyres have generally

improved over the last decade although there are some recent indications which may point towards a reversal in this regard. e.g. more fly tipping in some council areas, increase in appearance of tyres in bonfire sites in some council as well as incidents of large fires on sites storing tyres which were the subject of considerable media attention.

The current legal framework covering collection relates to legal obligations flowing from what is commonly referred to as "Duty of Care" requirements. The underlying application of "Duty of Care" is that of a self regulating system which can be circumvented with minimum risk of detection. In terms of storage and treatment/disposal the legal framework is outlined through a licensing/permitting regime. In both of these aspects, the competent regulatory authority is invested in the Northern Ireland Environment Agency (NIEA).

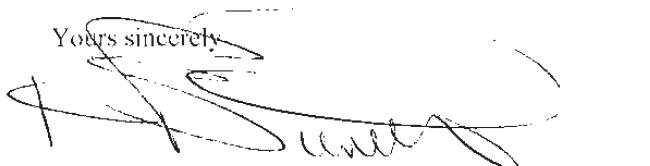
The level of enforcement activity adopted by the NIEA in this regard does cause some concern with a number of councils. Experience does vary in different localities and arc21 would suggest that a strategic approach to partnership working be adopted between the main agencies involved in addressing the regulatory and enforcement issues, particularly between the NIEA, Councils and the PSNI. This approach should primarily entail a regional dimension which could augment local liaison activities. arc21 does recognise there are some existing examples of local liaison being undertaken but believe there is scope for enhancement and coordination. Liaising at both a regional and local level is the key to establishing effective regulatory activities aimed at improving the management of waste tyres within the current legislative framework. It will be important to recognise that enhanced liaison at both a regional and local level will only be practical and workable if sufficient priority and resource is applied by all agencies involved.

The main weakness with the current free market system is the lack of a meaningful linkage between production, retail and end treatment/disposal. The application of a system which closely correlates to the principles of producer responsibility would strengthen this linkage and could facilitate a more cost effective and fairer method of control. This approach has worked reasonably well with other waste streams e.g. End of Life Vehicles, Waste Electronics and Electronic Equipment and Batteries. Although the differences in the nature of each of these waste streams will present different challenges, arc21 believe that a properly designed and robust producer responsibility system for waste tyres is worthy of consideration and further work. The devil will be in the detail but engaging with appropriate industry stakeholders should assist the development of suitable options in this regard. The Committee will be aware that a number of European Member States have a producer responsibility system in place and their experience could also be drawn on to develop suitable options.

The introduction of a suitable producer responsibility scheme could also act as a lever to the private sector to establish the innovative end markets referred to earlier.

I trust this is of assistance.

Yours sincerely,



R Burnett
Policy & Operations Director

PPP Group Submission

Response to the inquiry into used tyre disposal.

Based on tyre volumes collected by our company whilst we were actively recycling tyres, we would approximate 15000 tonnes of waste tyres arise within N.Ireland per Annum.

We can only determine that no formal/mandatory audit trail exists, the extent of information recorded during retail and disposal in proximity to retailer would vary greatly, the responsibility to record such information would be related to company policy and the value each individual company places on this activity. The following information should be recorded in all tyre retailers and distributors

1. Record of all new tyre purchases.
2. Record of all tyre sales.
3. Record of all waste tyres accepted against new sales.
4. Record of all waste tyres retained by tyre purchasers and their details.
5. Record of the price charged to the customer of each waste tyre accepted.
6. Record of the cost of waste tyre disposal.
7. Full and complete waste transfer notifications in relation to the above records.

The price charged to each customer is approx £1.00 - £2.00 for car tyres up to £20.00 for truck tyres. This is a relatively sensible and realistic charge if the tyres are being disposed of correctly and this charge allows for the high cost of processing waste tyres to a grade which is usable. Though in practice most retailers charge £2.00 per tyre to the customer and disposes of such tyres to unregulated and illegal waste tyre collectors for as little as 0.65p.

The table below which illustrates the relative costs involved in waste tyre collection, processing and onward disposal in England, as this is most likely the main disposal route for tyre disposal without extensive investment in equipment and premises it is quite easy to see what the relative charge for disposal relates to in relation to any potential profit during recycling for a legitimate company.

Collection price per tyre	Price Per tonne	Trans- portation cost N.I collections per tonne	Tyre baling fee per tonne	Transport to England per tonne	Minimum gate fee for disposal per tonne	Potential profit or loss per tonne
0.65	78.00	35.00	10.00	20.00	40.00	-27.00
0.75	90.00	35.00	10.00	20.00	40.00	-15.00
0.80	96.00	35.00	10.00	20.00	40.00	-9.00
0.85	102.00	35.00	10.00	20.00	40.00	-3.00
0.90	108.00	35.00	10.00	20.00	40.00	3.00
0.95	114.00	35.00	10.00	20.00	40.00	9.00
1.00	120.00	35.00	10.00	20.00	40.00	15.00

It's quite plain to see that the unregulated waste tyre collectors are unable to collect, process and dispose of tyres legally at the current costs they are charging. To turn a profit these tyres

end up in illegal stockpiles in various locations, on bonfires and illegally dumped/buried in various locations including The Republic of Ireland.

Other than the need for more detailed scrutiny of the financial records of such companies and how they describe/illustrate their activities, there is a major problem that facilitates this dysfunctional disposal system. The waste transfer notification system is farcical at best; set in place to monitor and restrict the movement of controlled waste by authorised persons/companies, most waste tyre collectors operate with N.Ireland with a only waste carrier's licence (this can be obtained from the NIEA with little more than a completed application form and the fee, no restrictions or assessment of capability or end use for proposed materials, movement ,treatment or disposal) illegal waste tyre collectors are not in possession of waste management licence nor do they have the resources or facilities to obtain one. So these unscrupulous operators can and regularly will collect hundreds of tonnes of waste tyres from tyre retailers and distributors issuing a so called waste transfer notifications for the transfer of the material with no waste management licence number just the waster carriers number, this in effect is legal but no regard is given to duty of care i.e. where is the waste going to? How has it been treated? What licensed site in N.Ireland is this material being received at?

Surely the NIEA has the resources to

1. Audit the amount of waste tyres produced at source(tyre retailers)
2. Audit the waste transfer notes they obtain and determine if the amount of transfers matches the amount produced.
3. Determine if the transfer notes are complete and correct.
4. Identify the main tyre collectors and audit their transfers to other sites or determine what or where they are disposing of the waste tyres collected.

It seems that if these unscrupulous collectors are not in possession of waste management licence the NIEA have limited powers of enforcement and resources, the process of bringing forward any cases against these types of companies are limited and complex, perhaps existing legislation should be examined to enable more flexible, responsive and decisive action to be taken against known offenders within a relative timescale and with a relative fine. The original source of the waste i.e. tyre retailers should be regularly audited and held accountable under duty of care to ensure this waste stream is channelled correctly.

We feel that there is no consistent or relative approach to the management of waste tyres in N.Ireland either at government level or otherwise the need for a N.Ireland strategy and approach has never been greater, the industry remains fragmented and unregulated the lack of investment publicly and privately has lead to most of the industry being lead by unscrupulous devious operators and as such has lead to a standoff approach by serious recycling companies.

We have identified a number of viable uses for waste tyres all of which have been proved uneconomic due to the undercutting of the disposal fee at retailers. As the table above illustrates there are fine margins within tyre collection and recycling, greater regulation within the industry would see the end of unscrupulous operators and see the disposal cost stabilise to a viable amount enabling tyres to be processed to a grade that enables true recycling or energy recovery.

We established viable uses such as:

1. TDF tyre derived fuel yields 15500 BTUs the equivalent to fossil fuels comprising of: Granulated tyres to 50mm containing steel to be used primarily as a fuel in the production of cement though contributes additional elements in the production of cement.
2. Granulated tyres to 50mm 100% steel free, used in production of rubberised safety surfaces either loose or mixed with resin to achieve a smooth surface.

3. Granulated tyres to 50mm 100% steel free use in equestrian facilities in replacement of wood bark or sand.
4. Granulated tyres to 200mm for use in landfill cell construction as a Leachate layer.
5. Granulated tyres from 50mm -200mm to be used in Pyrolysis to produce gas, oil and carbon black.

To process tyres to the relative grades as described above it takes very expensive equipment, with very regular and expensive service costs and fuel costs coupled with a suitable licensed facility to carry out such activities. We found that we could not compete with competitors that had no major capital expenditure or running costs and were able to undercut our prices due to the fact that they were able to collect waste tyres for 0.65p using only a lorry and a waste carriers licence.

As stated above this impedes development of the industry and discourages investment. Why enter a marketplace when you are at a distinct disadvantage from the outset? All of the above mentioned tyre derived materials are required within the domestic and foreign markets with great potential for export.

To conclude we identify these points:

1. Regular audit by NIEA into waste generated and transferred by tyre retailers and distributors and following the stream from cradle to grave.
2. Identify unlicensed operators and force them to comply with legislation in relation to waste transfer, duty of care, waste management licensing, planning etc within a relative time scale.
3. Allocate more resources to NIEA enforcement to enable greater and more regular inspection of waste transfer notes and inspection of premises identified as illegal transfer sites, also impose greater fines.

Northern Ireland Local Government Association (NILGA) Submission

This paper has been drafted by the NILGA Waste and Environment Working Group in liaison with the Technical Advisors Group (TAG), council good relations officers and the regional Waste Management Groups for NI.

For further information or to discuss any of the issues highlighted, please contact Karen Smyth at the NILGA Offices: Email: k.smyth@nilga.org Tel: 028 9079 8972

**Derek McCallan
Chief Executive**

16th September 2011

1.0 Pre-amble

NILGA, the Northern Ireland Local Government Association, is the representative body for district councils in Northern Ireland. NILGA represents and promotes the interests of local authorities and is supported by all the main political parties in Northern Ireland. Waste Management is a key issue for local government due to the huge impact it has on our resources, the potential for job creation, and the positive impact we can have on the environment through modernising our processes and infrastructure, given the relationship waste management has to sustainable development and climate change. NILGA is pleased to be able to have an opportunity to comment on the Environment Committee's Tyre Disposal Inquiry and we trust that our comments will be taken into account when developing the final report.

**For further details on this response, please contact Karen Smyth at the NILGA Offices.
k.smyth@nilga.org (028) 90798972**

2.0 Introduction

NILGA is keen to constructively support councils in Northern Ireland within the rapidly changing policy and technological context on waste management. We welcome the fact that the Department recognises that the impact that waste management has in the context of all three 'pillars' of sustainable development, and that departmental policies are currently being reviewed in light of the Waste Framework Directive. Lack of resources, particularly for enforcement of environmental legislation, remains a huge concern.

3.0 Illegal Tyre Disposal

NILGA is pleased to be given the opportunity to comment on the Committee's Tyre Disposal Inquiry. The issue of illegal tyre disposal was raised with the Minister by a number of the local government members of the Waste Programme Board at its meeting of 5th July, and NILGA can confirm that this is a serious issue for councils. The majority of tyres sent by councils for recycling are now as a result of fly-tipping incidents.

There are four main aspects to illegal tyre disposal in Northern Ireland, of which councils are currently aware. These are:

- Large scale illegal activity e.g. the 2009 events in Pennyburn and Campsie
- Smaller scale illegal disposal and rural issues e.g. flytipping into fields
- Illegal burning of tyres e.g. on seasonal bonfires
- 'Grey' areas e.g. remoulding and reuse of tyres

Large Scale Illegal Activity

Local government remains deeply concerned by the events at Pennyburn and Campsie in 2009. The scale of illegal disposal at these sites only became clear after the event, and it is the understanding of NILGA that up to half a million tyres were being stored at each site (**one million total**). The Pennyburn site had been granted an exemption to store **250** tyres, and no such exemption had been granted for the Campsie site. The cost to the Northern Ireland ratepayer of putting out and cleaning up after the fires was considerable, including costs incurred by Derry City Council.

The fact that such an illegal deposit could be allowed to accumulate is worrying, although it is understood that the Northern Ireland Environment Agency (NIEA) had been in the process of taking enforcement action at the time of the fires. An appropriate and well-enforced licensing regime is a necessity, in the view of councils. It is clear that there are other similar premises throughout Northern Ireland and NILGA is concerned that records are not up to date, resulting in the illegal operation of unlicensed businesses. A public register should be provided for suspension notices of firms which are in breach of their licences, in addition to the register of licensed firms. These details should be updated and published weekly.

There appear to be flaws and gaps in the current audit trail system whereby garages and sales showrooms can dispose of tyres at sites they perceive to be operating legitimately and these gaps are being manipulated to make money. It also appears to be difficult to prosecute those responsible for the illegal storage of tyres under the present system, and relatively easy to prepare fraudulent paperwork.

Smaller Scale Illegal Disposal/fly-tipping

There is anecdotal evidence that smaller scale fly-tipping of used tyres is on the increase. For example, an incident of this nature was recently reported to the Waste Programme Board by an elected member, who stopped an unidentified person from tipping a large quantity of tyres into a field he owned. Councils are particularly concerned that this type of activity is on the increase now that there is a total ban on landfill of tyres. NILGA is aware that the Committee has directly requested information from councils and waste management groups to quantify the issue, and is willing to assist the Committee in ensuring this information is as complete as possible.

NILGA will wish to discuss with the Committee, the wider issue of fly-tipping in relation to current concerns regarding the fly-tipping protocol, but would note the link between the protocol and this work. The Committee should note that councils have no statutory authority to remove deposits of tyres unless these deposits are on council-owned land.

Rural Issues

It is evident that there are specific issues in the rural areas of Northern Ireland arising from historic stockpiling of tyres for use on farms. In some areas, significant quantities of disused tyres still exist, mainly due to e.g. use of tyres to seal silage pits. NILGA is aware that the Ulster Farmers Union has written separately to the Committee in relation to use of tyres on farms, but would note that with increasing numbers of farmers using round silage bale methods for the collection of grass, the need for these tyres is reducing.

Our members are keen to ensure that there is an agreement on disposal between the UFU, tyre producers and the NIEA, and that a high profile rural communications campaign takes place to ensure the public are aware that farmers are no longer actively looking for tyres.

Illegal Burning of Tyres

Evidence that there is an increase in illegal disposal of tyres via seasonal bonfires is anecdotal, but it is certainly the case that councils and NIEA have worked hard to address what is a largely seasonal issue in Northern Ireland.

Further to discussion with members from various councils in Northern Ireland, it seems to be the case that pro-active approaches to enforcement have limited success in ensuring tyres are not used on bonfires. Not all bonfires are part of council schemes, and even for those that are, tyres can appear on e.g. the '11th night' either after council inspectors have made their last visit, or in circumstances where it would prove unsafe to the inspectors to attempt enforcement.

In 2011 Belfast City Council wrote to all local businesses working with tyres ahead of the summer to remind them of their responsibilities, the need to ensure tyres were properly disposed of, and the potential for enforcement. This campaign seems to have achieved some degree of success.

'Grey' Areas

NILGA is aware that there are usually ways round even the best licensing and enforcement system, and although there are obvious areas for improvement in the current system, there are some areas which might still prove difficult to address.

For example, when customers are presented with a fee for disposal of the tyre, it is sometimes the case that the customer will decide to remove the used tyre from the premises to dispose of it themselves. Given that landfill sites cannot accept tyres, it is more than likely that these tyres will be fly-tipped.

There is more information and advice needed about the issue of use of 'remoulds' and 'part worn' tyres, and these have the potential to be the subject of fraud, or at least, discrepancies in reporting figures. This is in addition to the obvious road safety concerns they pose.

Members are also aware that tyre depots can be the victims of criminal behaviour and that illegal removal of waste tyres from storage facilities is likely to pose wider problems.

4.0 Necessary Action

Enforcement

The current legal framework covering collection relates to obligations flowing from the 'Duty of Care' requirements. The underlying application of duty of care is that of a self-regulating system which can be circumvented with minimum risk of detection. In terms of storage and treatment/disposal the legal framework is outlined through a licensing/permitting regime. In both of these aspects, the competent regulatory authority is invested in the Northern Ireland Environment Agency (NIEA).

An overarching concern for councils, particularly with regard to environmental legislation, is the resourcing of enforcement. It is clear that for legislation to succeed and enforcement to be effective, adequate resources are required. NILGA has a significant level of concern with regard to the level of enforcement activity adopted by NIEA in general, and would cite the example of fly-tipping, where historically NIEA refused to deal with incidents smaller than 20000 tonnes of waste on the basis of prioritisation due to lack of resources. From discussions with councils, it is apparent that there is also a variation in experience between different localities.

NILGA would strongly support a partnership approach to enforcement, particularly between councils, NIEA and the PSNI. As highlighted earlier in this paper, there are some examples of effective partnership working at local level, but there is scope for enhancement and coordination, particularly at regional level. A strong, integrated local/regional approach is the key to establishing effective regulatory activities aimed at improving the management of waste tyres within the current legislative framework. It is certain however, that this enhanced kind of working arrangement will only be practical and effective if sufficient priority and resource is applied.

Producer Responsibility

The main weakness in the current ‘free market’ system is the lack of a meaningful linkage between production, retail and end treatment/disposal. NILGA is strongly in favour of a move to a system correlated to the principles of **producer responsibility**. Local government believes that a producer responsibility system for tyres would strengthen the links between production retail and end treatment/disposal, would be more cost effective and would facilitate a fairer method of control.

It is the experience of councils that similar systems have worked well for other waste streams e.g. batteries. Although the differences in the nature of different waste streams present unique challenges, NILGA believes that a properly designed and robust producer responsibility system for waste tyres is worthy of consideration and further work, and would encourage engagement with appropriate industry stakeholders as a matter of priority.

It is also suggested that it may be appropriate to ‘front load’ the costs of disposal, by including the price of recycling in the cost of new tyres, thus removing the incentive for illegal disposal by individuals, and ensuring a ‘paper trail’ for the tyre.

In its response to Stage 1 of the revised Waste Framework Directive, NILGA advocated the introduction of producer responsibility for the tyre industry, noting that:

“The industry should be given the overall responsibility for managing tyres that are flytipped or dumped illegally. This would reduce the need for public bodies to pay for their management and could make more resources available for enforcement. Clearly there is a unique situation in NI over the summer period, when there is a tendency to use tyres in bonfires, which the industry may be reluctant to deal with, however NILGA believes that the good practice being developed by councils e.g. Antrim Borough Council on changing the practices related to bonfires will reduce the significance of bonfires as an issue.”

Audit Trail

In the short term and until a new scheme can be introduced, which may require legislation, an improvement in the audit trail would be helpful. NILGA believes it is important to improve record keeping, monitoring and inspection, and to critically examine the current audit trail for managing tyres from purchase through to disposal, establishing key responsibilities at critical stages. Regular returns and inspections will be required to track movement of tyres and particularly their end destination.

It might prove helpful, particularly for farmers and small tyre businesses, for NIEA to compile and display on their website, similar to that for asbestos removal firms, a list of all registered tyre carriers.

Communication to the public

A concerted and high profile communications campaign is needed, to highlight the value of recycling tyres, to discourage use on bonfires and to raise awareness of the rural issues. This could be done using the Department’s ‘Re:think Waste’ branding.

End Markets

NILGA believes that it is vital to ensure a divergence of end usage for waste tyres to protect against any potential for undue escalation in costs as well as improving environmental performance. Encouragement must be given to the private sector to establish innovative end markets. It would be preferable to establish a sustainable end use market in Northern Ireland, if the scale of tyre disposal enables economic viability.

Other

Councils, by virtue of the nature of their operations, are producers of waste tyres, and ensure that these waste tyres are properly collected, managed and treated. This is undertaken via

properly procured arrangements with various private sector service providers, and there is no evidence to suggest that there is a deficit in private sector provision.

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Magherafelt District Council Submission

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Anna Lo, MBE, MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245
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30 September 2011

Management of Used Tyres in Northern Ireland

Dear Ms Lo

As a result of local difficulties experienced over the summer Magherafelt District Council has requested that I write to you in relation to the use of tyres as a bonfire material and the inevitable detrimental effect that this has on the environment.

I note that you had previously written to the Chief Executive as part of the Committee for the Environment's Inquiry into the Management of Used Tyres in Northern Ireland.

I believe that it is appropriate therefore that I respond to the questions that you have posed in that earlier request as this will both highlight our local issues and allow the information to be used for that Inquiry as appropriate.

- *Does your Council experience problems with used tyres over the summer months?*

Yes, the Council has experienced problems with used tyres being used as bonfire material over the summer months; that is specifically in the lead up to the 11th of July. Whilst the Council has a policy of no bonfires on Council land this is extremely difficult or near impossible to enforce. In recent years there are three bonfires locally (Castledawson, Tobermore and Beechlands, Magherafelt) which are established on land owned by or leased to the Council. These are in effect public open spaces with no access restrictions available or which can be practically involved. In addition there are other 'bonfire sites' within the District: these may be on Roads Service land (at least two) or on land belonging to other organisations (e.g.; NIHE).

- *Can you quantify the severity of the problem in terms of tyre numbers and/or weight?*

Not in any great detail but on counting the number being collected this year for one particular location (Castledawson) well in excess of 100



JOHN A. McLAUGHLIN
Chairperson

J. J. TOWHILL
Deputy Chairperson
and Portfolio Holder

A. M. CAMPBELL
Environment Officer
SLEA Key Worker

A. CASSIERS
Environment Officer

W. L. GLENDRINKING
Environment Officer
SLEA Key Worker

M. N. YOUNG
Environment Officer
SLEA Key Worker

tyres were noted. Evidence from other locations indicates that tyres were, in 2011, a feature of all of the major bonfires observed in the District and that these ranged in size up to and including tractor tyres. Generally the tyres are interlaced with other combustible materials such as pallets.

- *Has the problem got worse, stayed the same or increased in the last 5 years?*

Local opinion would be that the problem has got worse over the last five years and that there was a noticeable increase in the prominence of the issue in 2011 and also the volume of tyres being utilised as a fuel.

- *Has the nature of the problem changed over the last 5 years?*

Not particularly; dumping of tyres has never been a major issue in the District: it appears that more are being made available for bonfires and that this may be related to the current economic climate where tyre dealers and garages are seeking cheaper, if possibly, illegal methods for the disposal of tyres. This year (2011) is noticeably worse in terms of profile, press attention and complaints about the use of tyres.

- *How have you addressed any problems to date?*

The Council has made attempts in recent years to offer grants as an encouragement to make these events more of a cultural activity with one of the pre-conditions being that tyres are not used. In one local village this year, whilst a good relations grant had been applied for, and approved tyres were still utilised and as a result the conditions of application were broken and the grant withheld. Previously locally formed 'cultural' groups have engaged with the Council but this year in particular they were more reluctant to do so. It was felt, although difficult to establish with any degree of certainty that influences from outside of the local communities were attempting to be involved.

The Council has considered the removal of tyres from bonfires but given the sensitivities of these sites and the potential to provoke a community reaction it was not deemed safe (following a Risk Assessment) for Council staff to be exposed to potential risks associated with any removal operation. The PSNI were also directly involved, through local Councillors, in attempts to have the tyres removed from the bonfires on Council land. Local Councillors, from all sides, have also engaged directly with community groups in attempts to have tyres removed.

Information will also have been shared with NIEA on this matter

- *Have you taken any measures to stop any problems reoccurring?*

Not specifically: it is difficult to see what further measures the Council can take without placing staff in difficult or dangerous situations. It is felt that it is not the bonfires specifically that are the primary concern but the use of tyres as a fuel given the noxious nature of the smoke emitted from the types and the residues left behind. The Council believes that dealing with the source of the tyres and preventing this waste material

from being made available for burning is where efforts should be focussed. This approach implies that further regulation is required to control the disposal of tyres as a waste material.

- *Have you any suggestions for measures that could be taken at central government level to reduce the problem?*

We believe that an ability to track and trace used tyres along with an enforcement of a 'Duty of Care' approach to the disposal route of tyres as a waste material could be adopted. This may require individual tyres to be marked (barcoded for example) and for tyre dealers and garages to demonstrate that they have disposed of their used tyres in an environmentally friendly manner. We appreciate that this suggested approach will require further regulation being brought forward by NIEA and the establishment of a regulatory process which enables tyres to be traced and their disposal recorded much in the same fashion that Hazardous Waste requires traceability from the source to the final disposal point.

It is also of concern to the Council that tyre dealers and garages are charging customers an environmental disposal charge/levy and then making the tyres available locally as a bonfire material.

I trust that you find these comments useful; please do not hesitate to contact the Council should you require any further information.

Yours sincerely



Andrew Cassells
Director of Operations

Newry & Mourne District Council Submission



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Comhairle an Iúir & Mhúrn Newry & Mourne District Council

Cléireach & Príomhtheimeannach ~ Clerk & Chief Executive
Thomas McCall

Ár dTag / Our Ref:

Bhur dTag, / Your Ref:

Dáta / Date:

30th September 2011

Ms Anna Lo, MBE, MLA
Chairperson for the Environment
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
Stormont BT4 3XX

Dear Ms Lo

Northern Ireland Assembly Committee for the Environment Inquiry into the Management of Used Tyres in Northern Ireland

I refer to your letter of 30th June 2011 in relation to the above.

In response to your specific questions I would respond on behalf of this Council as follows.

Does your Council experience problems with used tyres over the summer months?

Yes, there are two periods over the summer that we would experience problems with used tyres, both relate to the traditional bonfire periods on the 11th July and 8th August. This Council area would have more bonfires on the 8th August than it would have at the 11th July, however the highest number of bonfires that we experience is over the Halloween period.

At other times of the year we have a small number of incidents where tyres have been dumped on public or private land.



Ár dTimpeallacht Ár dTodhchá - Our Environment Our Future



CUSTOMER SERVICE EXCELLENCE

Can you quantify the severity of the problem in terms of tyre numbers and/or weight?

The best example that we can provide relates to our experience over the Halloween period in 2006. There were twenty-nine bonfire sites reported to the Council. All but four sites were visited by Council officials and the reason for non visits was due to the fact that these sites were not reported until 31st October and time constraints made it impossible for action to be taken. The remaining twenty-five sites were inspected and arrangements were made to have the tyres removed. The Council's contractor removed over 4400 tyres from these sites. The cost of removal and safe disposal of these tyres to the Council was estimated to be £21,000.00.

Despite all these efforts tyres were burned at many of the bonfire sites as our experience has been that tyres removed by the Council can be quickly replaced by the bonfire organisers.

Has the problem got worse, stayed the same or increased in the last 5 years?

This Council has found that the problem has remained consistent over the past 5 years.

Has the nature of the problem changed over the last 5 years (e.g. a shift from burning to dumping)?

No, we have found that the majority of the tyres we are asked to deal with have been dumped for the purpose of being burned in a bonfire.

Have you taken any measures to stop any problems reoccurring?

As our main problem is associated with tyres being dumped for use on bonfires we have focused our efforts on these periods. Action that we have taken includes:

1. We contact all local tyre retailers before traditional bonfire periods reminding them of their legal responsibility under the Environmental Protection (Duty of Care) Regulations (NI) 2002 to ensure their waste tyres are stored securely pending disposal to a licensed facility (copy attached). This has been followed up with a visit to the premises to check for compliance. In one instance this involved joint visits between Council Officers and NIEA Officers.
2. We organised a local seminar to which all local tyre retailers were invited. At the seminar the financial, public health and environmental costs were highlighted. The legal responsibility of tyre retailers was explained and

there was a general discussion on what we could do together to reduce this problem. Some retailers present indicated that where they have refused to give tyres to young people organising bonfires that their premises were subject to vandalism.

3. We have issued Press Releases highlighting the issues of illegal dumping of tyres and the health/environmental issues of burning tyres (example attached).
4. We have, in partnership with PSNI and NI Fire and Rescue Services, visited local schools to raise awareness of the dangers of burning tyres.
5. We have trialed the use of a custom-built beacon (a pyramid-shaped metal-cage filled with willow wood) for one of our local community bonfires. This proved to be very successful and consideration is being given to rolling this out to other communities.

Have you any suggestions for measures that could be taken at central government level to reduce the problem?

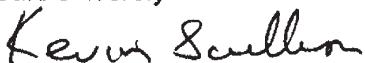
This Council has previously expressed its concern to the Department of Environment at the apparent level of non-compliance with the legal requirements for secure storage and proper disposal of waste tyres by a section of the motor industry.

The storage and proper disposal of waste tyres is controlled by the Waste and Contaminated Land (NI) Order 1997 and its subordinate legislation including the Environmental Protection (Duty of Care) Regulations (NI) 2002. Any business premise that collects waste tyres should, in compliance with this legislation, be able to provide documented evidence to show the number of waste tyres collected and how they have been disposed of. It is understood that a lack of resources prevents enforcing authorities from carrying out detailed audits of tyre premises to assess compliance with these requirements.

The Committee should consider what additional steps could be put in place to achieve greater compliance with these requirements. For example, a legal requirement for the tyre business to make an annual report to the enforcing authority detailing the number/size of new tyres sold, number/size of waste tyres collected, and a declaration from the company that has collected its waste tyres detailing the number/size of waste tyres collected from that business would assist in achieving greater compliance. Providing information in this format would allow for an initial review and targeting enforcement on those premises which have made no return or where discrepancies are noted within the submissions.

The Council wishes to thank you for your consideration into this matter and for giving it the opportunity to comment.

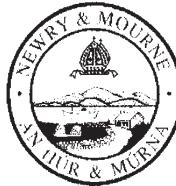
Yours sincerely


Kevin Scullion
Assistant Director of Environmental Health

Enc.



Teach Uí Aogáin,
Rae Mhuineacháin,
An tIúr,
BT35 8DJ



Comhairle an Iúir & Mhúrn
Newry & Mourne District Council

Cleirceach & Priomhtheimeannach - Clerk & Chief Executive
Thomas McCall

Ardtag / Our Ref.

Bhurardtag / Your Ref:

Date / Date

13 September 2007

Dear Sir/Madam

ALL TYRE DEPOTS AND/OR MANUFACTURERS

Dear Sir/Madam

**Environmental Protection (Duty of Care) Regulations (NI) 2002
Use of Tyres on Bonfires**

The Council has expressed concern at the availability of tyres for use in bonfires. As a tyre supplier/manufacturer you have a responsibility under the above legislation to ensure that unwanted tyres are stored securely pending their disposal at a licensed waste management site. A registered Waste Carrier should only undertake the movement of such tyres.

While bonfires are a traditional feature of community life, the use of tyres can cause considerable problems for those living adjacent to bonfire sites – especially for those people, for example, with respiratory problems for whom the fumes can be a particular annoyance.

The Council seeks your co-operation in complying with the above. However I must advise you that failure to comply with these requirements may result in your business facing a criminal prosecution with a fine of £5000. A Council officer will call with you shortly to discuss the arrangements you have in place to store and dispose of your waste tyres.

Yours faithfully

John Farrell

Director of Environmental Health



Ár dTimpeallacht Ár dTodhchá - Our Environment Our Future

Mayor's Halloween message.

Mayor of Newry and Mourne District Council, Councillor John Feehan, has urged local communities and businesses not to supply waste material, and especially tyres, to those intent on building bonfires this Halloween period.

Mayor Feehan reflecting on the upcoming Halloween period said “while no one wishes to lessen the enjoyment of Halloween for anyone, this period can place unnecessary costs on the Council. The Council are annually faced with trying to remove bonfire material prior to Halloween night and cleaning up bonfire sites in the days after. “

“Last year alone the Council confiscated 1500 tyres preventing them from being burned and causing potential environmental and health risks to residents. Our workers also removed over 200 pallets and substantial quantities of flammable debris. Our staff have also in the past been attacked while trying to deal with bonfire sites. This makes the task even more difficult”.

"All this effort is at a significant cost to the rate payer at a time when resources are stretched. This money could be better spent elsewhere."

Mayor Feehan added.

Each year unnecessary injuries are caused due to the unsupervised use of fireworks or the purchase of illegal fireworks which may not meet required safety standards. Representatives from the NI Fire & Rescue Service, Environmental Health, the PSNI and local Councillors have made visits to schools across the district to raise awareness of the dangers of fireworks and the burning of tyres in bonfires. Burning tyres can cause noxious fumes which pollute the atmosphere and can potentially cause health problems for residents.

The Environmental Health Department has written to all tyre retailers in the district reminding them of their legal duty to store all tyres safely prior to their proper disposal. Any incidents of illegally dumped tyres should be reported to the Council's Environmental Health Department on Tel 028 3031 3100.

*****END*****

Derry City Council Submission



DERRY CITY COUNCIL

Ref: PMcS/SD

30 September 2011

Anna Lo, MBE, MLA
Chairperson, Committee for the Environment
Environment Committee Office
Room 245 Parliament Buildings
Ballyniscaw
Stormont
Belfast BT4 3XX

Dear Madam

Re: Northern Ireland Assembly Committee for the Environment
Inquiry into the Management of Used Tyres in Northern Ireland

I refer to your correspondence regarding the above and welcome an opportunity to provide further information on the extent of the problems caused by the inappropriate disposal of used tyres.

In relation to the specific questions raised in your correspondence I would confirm the following.

1. Derry City Council does experience problems with used tyres over the summer months. In particular traditional bonfires are erected across the council area on the 11th July, 12th August and 15th August. Tyres are often deposited at a number of bonfire sites prior to these dates. During the period June, July and August 2011 Derry City Council disposed of the following number of tyres:

- car 1816
- truck 25
- tractor 3

The above figure does not include tyres collected and disposed of by the Northern Ireland Housing Executive

- 2 As previously indicated the main problem with used tyres is associated with dumping and subsequent burning on traditional bonfires during the summer.



Environmental Health Department

CITY HALL, 20 CASTLE STREET, DERRY, NORTHERN IRELAND, BT7 1QH

-2-

30 September 2011

Ms Anna Lo

As you may be aware substantial fires at tyre storage facilities in Campsie Industrial Estate and Pennyburn Industrial Estate had widespread environmental impacts and significant costs to statutory agencies such as the Northern Ireland Fire and Rescue Service (NIFRS) and Police Service of Northern Ireland.

Due to the economic climate there has been an increase in the part worn tyre market with tyres being imported from mainland Europe. These tyres will need to be changed more frequently with an increase in the quantity of waste tyres that need to be disposed of.

A number of smaller tyre centres return used tyres to their customers and encourage them to dispose of them at their local civic amenity centre. Costs of disposal are therefore passed on to Councils rather than the tyre centre.

Additionally there are a number of tyre fitting businesses located in Donegal in close proximity to the border who also advise their clients to dispose of used tyres in Derry City Council facilities adding a further dimension to this issue.

3. Council has formed an inter-agency/community group to address wider bonfire issues. The Council has also undertaken a baseline survey to gain a wider understanding of bonfire traditions in local communities. In several communities we have been successful in reducing the number of bonfires and those that use tyres as a fuel source. Unfortunately problems do persist and quantities of tyres on bonfires have increased over recent years.

This Council has been in regular contact with officers from the Northern Ireland Environment Agency (NIEA) reporting incidences of tyre dumping and taking part in joint visits to tyre centres as well as providing information to their proprietors on their statutory obligations. Requests have been made to the NIEA to increase their presence in the local area during the summer months in order to respond to incidences of tyre dumping and to carry out spot checks on tyre retailers.

Council officials have also met with provincial representatives of the National Tyre distribution Association (NTDA) to discuss a number of issues including tyre disposal.

-3-

30 September 2011

Ms Anna Lo

4. The regulatory role in dealing with tyres rests with the NIEA, though current amendments to waste legislation may strengthen the local authority role.

Issues around traditional bonfires are complex and despite negotiations not one local bonfire site has been prepared to look at alternatives such as beacons. Traditional bonfires will always have the potential to burn tyres, very often tyres are brought to these sites in hired vans on the day of the bonfire and are subsequently hard to remove. Council will continue to work with regulators, business, community groups and other agencies to minimise the impact of used tyres.

5. A number of measures need to be considered at a central government level

- Future control of used tyre disposal will have to be linked to approaches to traditional bonfires.
- Consideration should be given to the introduction of producer compliance schemes with enhanced monitoring.
- Resources should be targeted at those involved in the illegal disposal of tyres with recognition given to those fulfilling their statutory obligations.
- All Ireland measures should be considered with enhanced cross border co-operation between regulatory agencies.

I would encourage that the Committee consults as widely as possible with other statutory agencies such as the NIFRS who can incur significant costs in tackling large tyre fires, the NIHE who have to pick up the costs of collecting and disposing of tyres deposited on their land and representatives of the tyre trade.

Yours faithfully



Philip O'Doherty
Chief Environmental Health Officer

Ballymena Borough Council Submission



Your Ref:

Our Ref: ND/jmck

Being dealt with by: Mr Nigel Devine, Tel:- 028 2566 0389

Date: 04 November 2010

Mr Cathal Boylan
Chairperson
Committee for the Environment
Room 245
Parliament Buildings
Balmiscaw
Stormont
BELFAST
BT4 3XX

BALLYMENA BOROUGH COUNCIL

Council Offices, "Ardeevin",
80 Galgorm Road, Ballymena, BT42 1AB

Telephone 028 2566 0300
Facsimile 028 2566 0400
Local Rate Telephone 084 5658 1581
www.ballymena.gov.uk

Dear Sir

Re:- Safe Disposal of Tyres

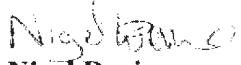
Thank you for your letter regarding the issue of disposal of tyres. Over the past number of years Ballymena Borough Council has been proactive with regards to tyre disposal around Halloween and the 12th July Bonfires. Whilst Halloween does not appear to be an issue in Ballymena with regard to the illegal disposal of tyres, I would have concerns with regard to the 12th July Bonfires.

Over a number of years we have been visiting local tyre depots prior to the 12th July celebrations and marking their used tyres with a unique colour code that makes it possible for us to trace tyres dumped at bonfires back to the depots. This in itself has proved to reduce and even eliminate tyres being given out by the tyre depots.

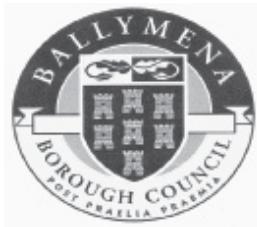
My concern is that over the past years I have written to the Northern Ireland Environment Agency informing them that tyres are going to be dumped at a location on the Kellswater Road, Ballymena. These tyres are dumped each year 24/48 hours before the 11th night bonfire. I have indicated on a map the exact location and to date it appears that nothing is being done by the NIEA who are the Enforcing Authority for this offence. I have enclosed copies of the letters sent along with map locations and photographs of what has been dumped in 2010 and 2009. This has caused grave concerns not only to the Council but also to the residents who have to live with the aftermath of burning tyres for months after this event.

Should you require further information, please do not hesitate to contact me on 028 25660389.

Yours faithfully


Nigel Devine
Borough Warden

Encs



Ballymena Borough Council's Written Evidence to the Committee for the Environment

Inquiry into Used Tyre Disposal

October 2011

Purpose

The purpose of this paper is to inform the Environment Committee of the tyre marking scheme operated by Ballymena Borough Council since 2003. This paper also makes recommendations for bridging the current monitoring and enforcement gap regarding illegal disposal of waste tyres. Whilst councils can implement practical initiatives such as this 'marking scheme' it is our opinion that to fully address this issue a more strategic and overarching approach including both monitoring and enforcement is required.

Strategic Context

Council's role in the tyre marking scheme, and motivation, in introducing and sustaining this programme, is to fulfil our civic leadership role and to ensure that our Borough remains an attractive, clean and safe environment and a welcoming place for all. It is not our legal duty but our civic duty to carry out this work. The civic leaders are committed to the community planning process and feel very strongly that joined up public services is the only way to address citizen's needs. Elected members of Ballymena Borough Council see their role is to oversee and influence all public services not just the 5% that we manage.

Introduction

Council welcomes the inquiry that this committee is undertaking on waste tyres and we are very pleased to have been given the opportunity to be involved and to share the details of our experience. The scheme developed by Council and managed by our Borough Warden, is regarding tyre marking in depots and other retail premises prior to the bonfire season. This scheme arose through our work with the communities and bonfire organisers to try to ensure that bonfires within our area were as environmentally friendly as possible. We believe that this scheme was possible because of the good relations between Council elected members, officers and the community. We became aware that there was and still is an issue around tyres being placed on bonfires often by persons unknown and unidentifiable. Within the borough Council acknowledge there is both criminal activity and smaller scale illegal waste disposal activities in relation to tyres.

Legislative Base

As the legislation presently stands the responsibility for the monitoring and enforcement of proper disposal of used tyres sits with the Northern Ireland Environment Agency (NIEA) under the provisions of the Waste and Contaminated Land Order (NI) 1997, The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations (NI) 1999 and the Controlled Waste (Duty of Care) Regulations (NI) 2002. Presently council have no legislative remit pertaining to waste tyre disposal, illegal or otherwise unless the tyres are on council owned land. We believe that if the powers set out in the existing legislation were maximised by the NIEA the problems associated with the disposal of waste tyres would be minimised.

Council's experience has shown that in practice the NIEA appear not to have a proactive approach to ongoing monitoring and enforcement in relation to the disposal of tyres. As a result of this the minimisation of illegal tyre disposal is not achieved.

Process of tyre marking

Having identified the ongoing monitoring and enforcement gap council decided to be proactive and hence in 2003 we began to visit our local tyre depots and other relevant retailers, to mark all waste tyres. Tyres at each outlet were marked with a different colour and/or motif (Photographs 1 and 2) to aid identification should they appear on a bonfire or illegal dump at a later date. This is a simple system which has a positive effect in relation to breaches of the legislation.

Photograph 1 showing the marking of tyres by a council officer.



Photograph 2 showing marking on tyres.



This approach is well received by the companies involved as they feel it offers them some protection from intimidation and undue influence to hand tyres over illegally. The owners / managers of these businesses continue to welcome this approach and have all actively engaged on a voluntary basis with the tyre marking scheme.

Whilst we would be the first to admit this scheme is by no means perfect it was introduced to proactively address the existing monitoring and enforcement gap. Where such a gap exists there is often increased criminality.

Prior to the tyre marking scheme every bonfire within the borough had significant numbers (100 plus) of tyres. Since the inception of the tyre marking scheme the number of tyres on bonfires and illegals sites had decreased to the point where tyres were either absent or minimised at most sites. Critically no marked tyres were detected on any site in the borough.

The 2010 bonfire season unfortunately showed an increase in the amount of unmarked tyres appearing on bonfires. Due to the success of our scheme we can infer that these unmarked tyres are being sourced outside our borough. The absence of any marked tyres supports our view that this is a successful scheme.

Monitoring and Enforcement

Proactive monitoring and enforcement are in our view critical and are the best way to fully address the ongoing issue. We are pleased to note that during NIEA's oral evidence to this committee Mr Foster submitted that NIEA are pursuing a number of cases involving illegal disposal of waste tyres. We welcome this approach. It is concerning that Council has not been made aware of any such enforcement plans , which highlights a potential communication gap between local councils and NIEA and the need for a more joined up approach.

Council initiated a successful joined up approach between council and NIEA in 2006. During the annual visits to tyre depots council officers were accompanied by an NIEA officer who monitored compliance of tyre businesses within our borough under the duty of care legislative requirements and both agencies were therefore visible on the ground. As a result of these joint visits NIEA secured a successful prosecution against one premises for the non-production of appropriate documentation and a further two premises received warning letters. Unfortunately this joint approach has not been repeated on an ongoing basis and was merely a one off event. NIEA state that this is due to resource implications. It is council's opinion the joint visits communicated a strong message to all concerned, made a positive difference on the ground and delivered results.

It is noted within point 12 of the NIEA's written submission that , NIEA intends to 'carry out an awareness raising exercise for all retailers and distributors underpinned by a key stakeholder seminar to highlight and emphasise the business operators' responsibilities under Duty of Care, when they are handing over their waste to collectors'. Council would strongly recommend a joined up approach similar to the 2006 joint operation and would welcome this.

Partnership working between council and NIEA

There is no doubt there is a need for closer joined up working between council and the NIEA in addressing the issue of tyres and wider issues of illegal waste disposal. The 'Fly Tipping Protocol' sets out the quantitative thresholds to determine the respective responsibilities of the council and NIEA, the threshold is set at 20m³ (Photograph 3) for non-hazardous waste and 2m³ for hazardous waste, any illegal deposit at or below this threshold would be dealt with by councils. These thresholds were proposed by the DoE NI despite the majority of respondents to the related consultation exercise opting for a threshold similar to that in Scotland i.e. 6m³ (Photograph 4) for non-hazardous waste and no hazardous waste for councils. Some councils including our own have formally rejected the proposed protocol as it could potentially bring a large financial burden on councils and ultimately the ratepayer. Council have calculated the projected cost to remove 20m³ of illegally deposited non-hazardous waste as approximately £2280, per complaint, in addition there may also be possible penalties for councils for failure to meet NILAS targets at £150 per tonne over council's allowance. A small amount of hazardous waste, for example a tin of paint or a single fluorescent tube within a larger accumulation of non-hazardous waste would deem that the whole accumulation be considered hazardous and must therefore be treated as hazardous waste. When deemed as hazardous treatment and disposal becomes much more expensive due to the necessity to engage specialist contractors and the lack of disposal facilities within Northern Ireland. A contract for the treatment and disposal of hazardous waste, centrally procured and operated by the NIEA would seem the most appropriate way to deal with this issue.

Similar concerns regarding the proposed Fly Tipping Protocol have also been expressed by other councils, the three main waste groups in the province and NILGA.

Photograph 3 showing approximately 20m³ of waste



Photograph 4 showing approximately 6m³ of waste



Conclusion

To be effective we need a joined up agreed protocol and working relationship between councils and the NIEA. This must be supported by clear and mutually informative communication.

Criminal activity, small and large scale will continue whilst the monitoring and enforcement gap remains and therefore a positive initiative led by any council alone can only provide a partial solution. The creation, introduction and development of an overarching multiagency approach to this problem will in the long run be more productive for the citizen, the environment and the public purse.

Council are willing to work with NIEA and any other appropriate body to improve the tyre marking scheme or indeed to advise others on how to take a similar approach within their borough but recognise it is not of itself a solution.

The Committee can be assured of council's willingness and preparedness to assist in a joined up approach to monitoring and enforcement with the NIEA which we see as a crucial tool in the minimising of the illegal disposal of waste tyres and are happy to pilot this if required.

Recommendations

The following recommendations are made to the committee.

1. A more strategic and overarching joined up approach to both proactive monitoring and enforcement must be implemented to tackle this issue.
2. Council would strongly recommend a joined up approach similar to the 2006 joint operation i.e. localised 'duty of care' enforcement with the marking of tyres in every local authority to minimise the opportunity for criminality in the illegal disposal of tyres.
3. Council recommend improved communication between local authorities and the NIEA, and would welcome involvement in the awareness raising event highlighted by Mr Foster.
4. Council would strongly recommend that the proposed Fly Tipping Protocol be amended to realistically reflect the role of Council and local government.

5. We would recommend that a pilot be run between a local authority and the NIEA where proactive monitoring and enforcement is run alongside an initiative such as ours, and that the impact of this on the ground be evaluated.

Details of Ballymena Borough Council Elected Member and Officers in attendance

- Alderman Robin Cherry – Deputy Mayor
- Mrs Nicola McCall, Deputy Director of Environmental Services
- Mrs Sinead Sargent, Senior Environmental Health Officer
- Mr Greg Dornan, Head of Policy

Crumb Rubber Ireland Ltd Submission

Crumb Rubber Ireland Ltd. & Sustainable Management of Waste Tyres

Briefing note for Northern Ireland Assembly Committee for the Environment

January 2012

Crumb Rubber Ireland Ltd is a crumb rubber manufacturer located in Dromiskin, Dundalk, Co. Louth. It is the only facility on the island of Ireland producing a full range of rubber granulate and matting products. Crumb rubber is produced from used tyres, through the use of mechanical processes (e.g. grinding and shredding, granulation, compaction). This cradle-to-cradle process produces eco-innovative products for the agriculture, horticulture, construction, childcare, equestrian, leisure, golf and sports industries. In addition, as part of this process, the facility produces a number of by-products, namely recovered steel, which is sent for recycling; fibre, which is used for equestrian gallops and rubber dust which is reincorporated into product.

The used tyres, which form the feedstock of the company are sourced from across Ireland, either collected by the company or delivered to the facility. However, illegal stockpiling of tyres in both jurisdictions on the island create difficulties in sourcing tyres, as the free option of dumping will always be preferable to some tyre collectors over the gate fee charge by recycling plants. Recent investment in the company means that the plant has sufficient capacity to double its intake of used tyres and so has the potential to form a significant part of the solution to the mismanagement of used tyres on both parts of this island.

In 2010 Crumb Rubber Ireland Ltd. was recognised by being awarded the title of National Green Entrepreneur at the Green Awards 2010 demonstrating its “long-term employment potential through providing services or products in the green business space.” Not wanting to rest on its laurels, the company is committed to continuous environmental improvement and has just recently completed a year-long Irish EPA CGPP programme project to improve its environmental performance and embed cleaner production into its operations.

Crumb Rubber's products (examples illustrated on the following page) include: Rubber matting for horse walkers; Foot paths; Play areas; Wash boxes; Walk ways; Loading ramps; Yards, stables; Stable aisles; Golf tee boxes; Coloured rubber landscape chips for Gardens, landscaping and play areas; Granulate rubber for arenas, gallops, walkers, artificial playing pitches and poured in place surfaces. The company is actively developing additional product lines of rubber mats, sheet material and cobble lock paving.

Solving the used-tyres problem

Recycling plants such as Crumb Rubber Ireland Ltd. present a sustainable and job creating solution to management of used tyres but only if activities such as the illicit dumping of tyres ceases.

The free market approach to the end-of-life management of tyres which has been in place in both Northern Ireland and the Republic of Ireland has not worked and indeed in some ways it incentivises activities such as illicit stockpiling of tyres. Across both parts of Ireland there are substantial amounts of tyres, which have been dumped and so present both environmental and fire risks, while also representing a significant waste of resources.

We suggest that as experience would indicate the free market approach to the control of tyre is not working, perhaps it is time to adopt a producer responsibility approach. There is substantial cross-border movement of both part-used and used tyres between both jurisdictions and so a producer responsibility initiative (PRI) will only work on a partnership basis between North and South



Figure 1: Rubber mats



Figure 2: Rubber footpaths



Figure 3: Sports tracks



Figure 4: Sports turf Improvement



Figure 5: Coloured garden chip

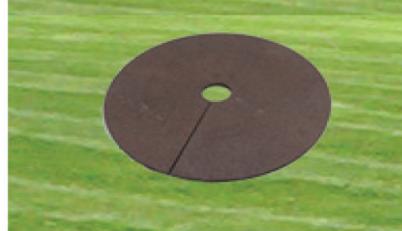


Figure 6: Tree rings



Figure 7: Dairy mats



Figure 8: Mats for slatted units



Figure 9: Silage mats



Figure 10: Equestrian gallops

We would further note that Extended Producer Responsibility (as advocated by Lindqvist, and others) works best when those with greatest interest in seeing its success manage such schemes. In many cases this has been manufacturers (or their agents in the case of imported goods). However we would suggest that this is not necessarily the case with waste tyres as many tyre manufacturers are vertically linked with rubber production and may see recycled rubber products as competition. It may well be that the group with the most interest in seeing a successful tyre extended producer responsibility scheme are the tyre recyclers.

Leo Kerley,

Managing Director.

Crumb Rubber Ireland Limited.

Crumb Rubber Ireland Ltd., Mooretown Dromiskin, Dundalk, Co. Louth
+353(0)42 938 2611 | <http://www.crumbrubber.ie/>



Appendix 4

List of Witnesses

List of Witnesses

Ms Helen Anderson, Department of the Environment

Mr Dave Foster, Northern Ireland Environment Agency

Ms Pamela Patterson, Northern Ireland Environment Agency

Cllr Shaun Gallagher, Northern Local Government Association

Cllr Hubert Nicholl, Northern Local Government Association

Mr Tim Walker, Northern Local Government Association

Mr Peter Taylor, Tyre Recovery Association

Ms Vivienne Donnelly, Belfast City Council

Mr Jim Hanna, Belfast City Council

Mr Stephen Leonard, Belfast City Council

Mr Robin Cherry, Ballymena Borough Council

Mr Greg Doran, Ballymena Borough Council

Ms Nicola McCall, Ballymena Borough Council

Ms Sinead Sargent, Ballymena Borough Council

Mr Brendan Carragher, Newline Waste Solutions

Ms Diane Roberts, Newline Waste Solutions

Mr Ricky Burnett, Arc21

Mr Norman Kerr, Kerr's Tyres

Mr Graham Byrne, SWaMP2008

Mr Pearse McLeer, SWaMP2008

Mr Jason Patterson, SWaMP2008

Mr Pat Kierans, Tyre Recovery Activity Compliance System

Mr Fiacra Quinn, Tyre Recovery Activity Compliance System

Mr Colm Conyngham, Bridgestone

Mr Naill Murray, Bridgestone

Ms Gillian Bruton, Depotec

Ms Isabelle Kurz, Depotec

Dr Eamon McKeogh, Depotec



Appendix 5

Research Papers



Research and Library Service Briefing Note

Paper 000/00

6 October 2010

NIAR 000-00

Kirsty Bell and Suzie Cave

Tyre Disposal

At the Environment Committee meeting on 23rd September members requested information on how tyres are disposed of in Europe and the measures taken by countries to ensure an audit trail of tyre disposal.

Under the European Landfill Directive (2006) tyres are banned from being put into landfill. The EU Landfill Directive introduced a ban on whole tyres being sent to landfill in July 2003. The ban on shredded tyres came into force in 2006. This directive encourages the re-use of waste tyres.

In 2006 in the UK 93% of tyres were recovered for recycling. The UK is still ranked behind the likes of Austria, Belgium, Denmark, Finland, France, Germany, Hungary, the Netherlands, Portugal, Slovakia, Sweden and Norway, all of whom claimed 100% diversion of tyres from landfill.¹

All EU member states have to be in compliance with EU landfill legislation and although they all must implement it, they are free to manage it in different ways. There are three different systems in place across Europe for managing end-of-life tyres:

- Free market system
- Producer responsibility
- Tax system²

1 UK leads Europe on tyre recycling http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=217&listitemid=8977 accessed 06/10/2010

2 ETRMA (2006) End of life tyres http://www.wastexchange.co.uk/documenti/tyres/ETRMA_ELTs_report_2006.pdf accessed 04/10/2010

Free Market System

The legislation sets objectives but does not define how these are to be met. Therefore, all operators in the tyre recovery chain act in compliance with the legislation under free market conditions. Companies may cooperate on a voluntary basis to promote best practice.

Countries which use this system: Austria, Germany, Ireland, Switzerland, United Kingdom.

Producer Responsibility

The majority of EU countries operate under this system whereby the producer of the tyre is responsible for the managing of end-of-life tyres. This system appears to be the most economical way to achieve a 100% recovery rate of tyres. For the end user it guarantees transparency through invoices at each stage.

Countries which use this system: Belgium, Czech Republic, Finland, France, Greece, Hungary, Norway, Netherlands, Poland, Portugal, Romania, Spain, Sweden.

Tax System

Each country is responsible for recovery and recycling of end-of-life tyres financed by a levy on tyre production which is passed on to the customer.

Countries which use this system: Denmark, Latvia, Slovakia

How tyres are disposed of in European countries

Across Europe tyres are remoulded for use as retreads or are recycled to make childrens' playparks, for use in cement kilns as an alternative to fossil fuels and are used across the engineering and construction sectors.

UK

The way recycling and waste management operates in the UK is driven by legislation which largely derives from European Union directives. The key directive is the Waste Framework Directive which was revised in 2008.

The UK Environment agency introduced National Tyre Watch which aims to:

- Reduce the illegal disposal of tyres
- Support sustainable disposal and recovery processes
- Reduce the environmental risk from tyre stockpiles³

Under the Environmental Protection Act 1990, Duty of Care is a legal requirement for anyone who produces, carries, keeps, treats or disposes of waste tyres. It requires these individuals to ensure that tyres are not handled illegally and that waste tyres are transferred to authorised persons with a waste transfer note.⁴

In the UK tyres are recycled to make a number of products such as for use in engineering, as an export material, or can be sold as retreads and part worn tyres⁵. By converting tyres into

3 UK Environment Agency <http://www.environment-agency.gov.uk/business/topics/waste/32152.aspx> accessed 04/10/2010

4 <http://www.tyredisposal.co.uk/about.html> accessed 06/10/2010

5 Public Service Review (2006) 'Driving Tyre recycling Forward http://www.publicservice.co.uk/article.asp?publication=Central%20Government&id=216&content_name=Waste%20and%20Recycling&article=5705 accessed 04/10/2010

a reusable product they have a traceable audit trail for peace of mind and the Environment Agency's satisfaction.⁶

The Responsible Recycler Scheme (RRS) was established in 2001. It is a voluntary scheme which ensures that its member companies, who are responsible for the majority of used tyre collections in the UK, re-use, recycle or dispose of scrap tyres in an environmentally responsible way. Those who subscribe to the scheme are subject to a stringent audit process conducted regularly by independent environmental audit specialists.⁷

Ireland

Tyre disposal in Ireland is monitored by the Department of Environment's Waste Management Regulations (2008). Much the same as the UK, wholesalers and retailers must use authorised waste collectors to take away waste tyres, and must provide details of tyres taken back and transferred to authorized collectors. These collectors are required to report on the quantities of tyres taken, and to acquire "Certificates of Recovery" from recyclers, retreaders, remoulders or any other recovery operators to show that tyres have been dealt with properly.⁸ Businesses can sign up to TRACS (Tyre Recovery Activity Compliance Scheme) which monitors the movement of tyres in Ireland. The scheme is voluntary and members allow their waste tyres to be monitored and only allow the collection of waste tyres by licensed collectors.⁹

Sweden

In Sweden, producers are responsible for the collection and disposal of waste tyres. The Swedish Tyre Recovery Association is a producers' responsibility organisation which is obliged to report to the Swedish Environmental Protection Agency on the amount of tyres collected and treated. They collect and publish data about the treatment of scrap tyres.¹⁰

Hungary

In Hungary, tyre waste sites are being taken over by companies which recycle tyres into other rubber products.¹¹ The producers, importers and distributors of tyres in Hungary must pay an environmental tax for disposing of tyres. Tyre recycling companies can be exempt from the environmental tax if they meet a required tyre recycling rate. They may enter contractual agreements with producers/distributors which involves the producer/distributor paying a fee to the recycling company to dispose of the tyres in an environmentally friendly way. The fee will normally be equivalent to/less than the environmental tax to encourage responsible disposal of tyres. Recycling companies may remove waste end-of-life tyres from garages for free. The recycling companies are responsible for checking the companies at each stage of the process are complying with regulations. Recycling companies must report to authorities on the number of tyres collected and recycled.¹²

6 <http://www.end-of-life-tyres.com/page2.html> accessed 04/10/2010

7 Tyre Recovery Association <http://www.tylererecovery.org.uk/page/about-the-tra/the-tire-industry-federation-responsible-recycler-scheme/> accessed 04/10/2010

8 'Ireland to introduce producer responsibility' http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=226&listitemid=8572§ion=info/waste_management accessed 04/10/2010

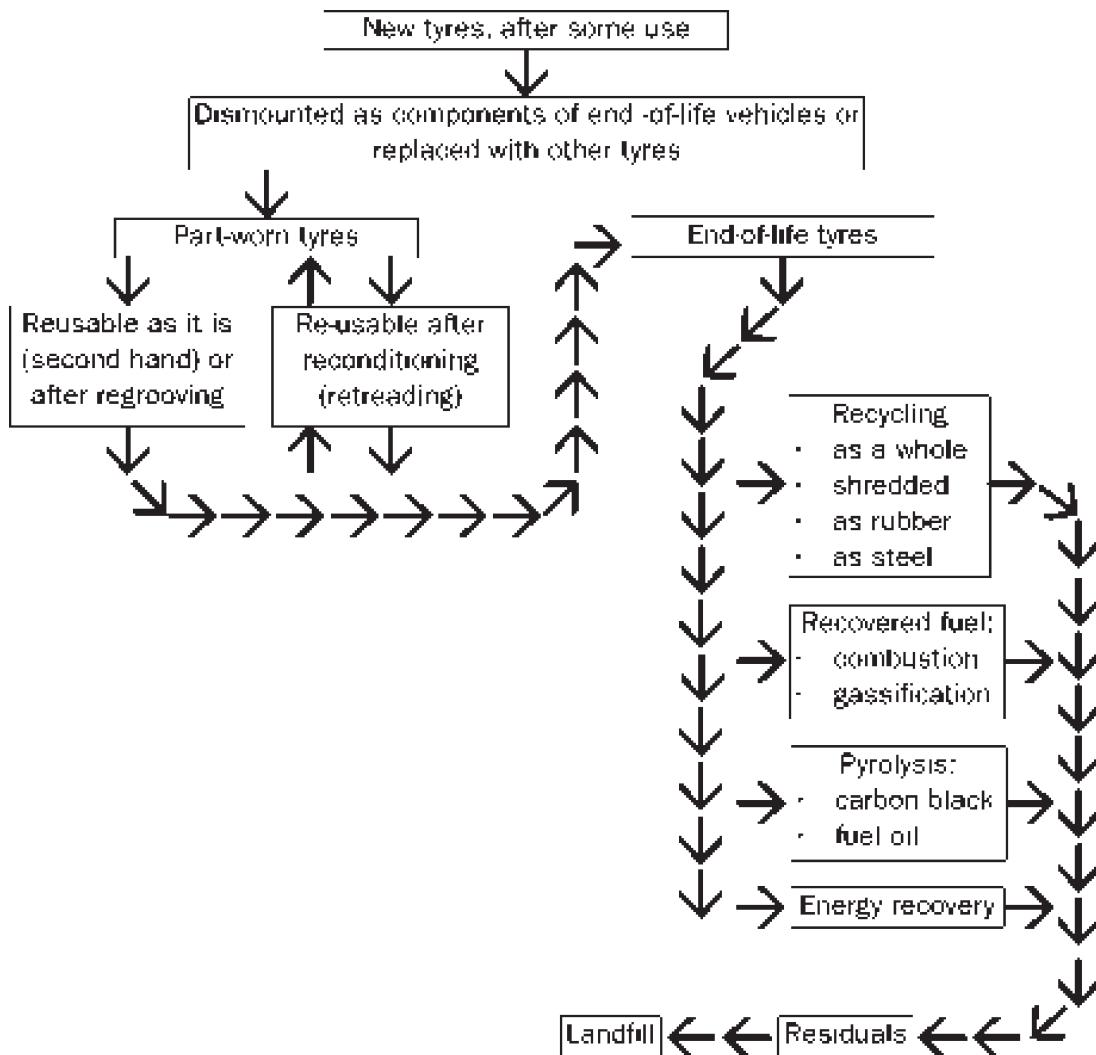
9 Irish Tyre Industry Association <http://www.itia.ie/tracs.html> accessed 04/10/2010

10 Swedish Environmental Protection Agency Quality Report (2008) http://www.naturvardsverket.se/upload/06_produkter_och_avfall/avfall/avfallsstatistik/avfall-sverige-2008/kvalitetsdokument.pdf accessed 04/10/2010

11 MeWa (2007) 'From used tyres to Rubber Powder' http://www.mewa-recycling.de/fileadmin/user_upload/PDF/MeWa_News_1207_E_I.pdf accessed 06/10/2010

12 HUREC <http://www.hurec.hu/main.php?t=hatosagok&lang=en> accessed 06/10/2010

Flow chart showing how the different categories of used tyres and how they can be recycled to be used as road legal tyres again.¹³



13

Flow chart produced by European Tyre & Rubber Manufacturers' Association <http://www.etrma.org/public/activitiesoftelts.asp> accessed 04/10/2010

Research Paper - End of Life Tyres

Key Points

- Key legislation – Landfill Directive (99/31/EEC) implemented in NI by the Landfill Regulations (Northern Ireland) 2003
- Tyres are one part of four Priority Waste Streams
- Based on a survey carried out in 2000 there is between 16,000 tonnes and 18,000 tonnes of waste tyre arisings per year currently in NI. Is this correct or an over- or underestimate?
- 10 years ago there was a limited market for end of life tyres in NI. What is the current situation? What is the capacity of NI's processing and disposal facilities? How does department monitor these operations?
- 30% of tyres were unaccounted for in 2000. Comprehensive and consistent approach to data collection required. Is current system in accordance with Waste Statistics Regulation (No. 2150/2002)? How to deal with under-reporting?
- Free market system for collection/disposal in operation but with reporting responsibilities– charges applied:
 - Environmental Disposal Charge
 - Collection Charge
 - Disposal Fee
- 2007 survey indicated that in NI these charges were generally higher, on average, than all the other parts of the UK surveyed (including Scotland and South Wales)
- In NI there is no clear designation of responsibility (or apparent strategy) for end of life tyres. What is the role of tyre manufacturers, NIEA, local government, collectors and processors etc? What are criteria to obtain an exemption from waste management licensing? How are these exemptions monitored?
- No specific target for reduction in waste tyre arisings by DoENI in the current Waste Management Strategy 2006-2020; but in 2000 the target was an 85% recovery of end of life tyres set for 2005 and 100% by 2010
- Management of end of life tyres in Europe – 13 countries adopt an approach based on not-for-profit companies financed by tyre producers i.e. Producer Responsibility
- TRACS (Republic of Ireland) – provides a verifiable audit trail for the proper supply of new tyres and the management of used ones

1. Legislation

While there is a range of legislation that relates to the disposal of tyres the key legislation is the **Landfill Directive (99/31/EEC)** implemented in NI by the **Landfill Regulations (Northern Ireland) 2003** and Landfill (Amendment) Regulations 2004 which banned whole tyres from being landfilled.

Shredded tyres were banned from landfill from 2006.

2. Priority Waste Streams

Tyres are also part of one of four identified Priority Waste Streams:

- Waste Electronic and Electrical Equipment (WEEE)
- End of Life Vehicles (ELVs)
- Tyres
- Batteries

3. End of Life Vehicles

Approximately 50, 000 vehicles come to the end of their life in NI every year. The disposal of these vehicles is governed by the End of Life Vehicles (ELV) Directive 2000/52/EEC. This Directive makes little reference to tyres but it does have an important impact on the sector as it promotes reuse, recycling and other forms of recovery of end of life vehicle and their components (including tyres).

By 1 January 2015 for all end of life vehicles the reuse and recovery for all ELVs is set at a minimum of 95% by an average weight per vehicle and year; the reuse and recycling targets increased to a minimum of 85% by average weight per vehicle and year.

ELVs are only treated at Authorised Treatment Facilities (ATFs) which are licensed by the NIEA which also maintains a register of these facilities.

The last owner of the vehicle is provided with a Certificate of Destruction (CoD) which ensures that the vehicle is treated and disposed of properly.

4. Amount of used tyres arisings produced in NI

The Northern Ireland Used Tyre Survey¹, produced by a predictive model, estimated that the total quantity of used tyres as 16, 100tonnes in 2000 and likely to increase at a rate of 1% per year. Table 1 shows the projected rate of tyre arisings per capita for each of the three waste management areas in Northern Ireland based on this assumption.

Table 1 Projected tyres arisings per capita for the three waste management areas in NI

Year	Arc21 (Arisings) tonnes	SWAMP (Arisings) tonnes	NWRWMG (Arisings) tonnes
2005	9, 448	3, 345	2, 337
2010	9, 935	3, 515	2, 458
2015	10, 449	3, 693	2, 584
2020	10, 984	3, 881	2, 716

5. What happens to these tyres?

The same used tyre survey stated that:

- 30% of the total tyre arisings in NI are unaccounted for;
- 32% went to retread manufacture
- 16% went to farmers

The remainder was reused (in NI or abroad), stockpiled, landfilled, burned on bonfires etc

A report by the Interagency Working Group on Bonfires² also referred to the large quantity of tyres that are burned on fires. Based on figures supplied by councils the report estimated that tyres comprised 30% of bonfire materials. Initiatives such as 'Tidy Bonfire Grants' may have impacted on this figure and anecdotal evidence suggests much fewer tyres are given to bonfires but no available current data to underpin this.

1 Northern Ireland Used Tyre Survey (2000) Environment and Heritage Service

2 Bonfires: A Report by the Interagency Working Group on Bonfires. Environment and Heritage Service (2004)

6. What approach operates in the UK (including NI) for management of end of life tyres?

The UK operates a free market system where the legislation sets objectives but does not designate those responsible for end of life tyres. However, this is a hybrid system as collectors and treatment operators have to report to national authorities.

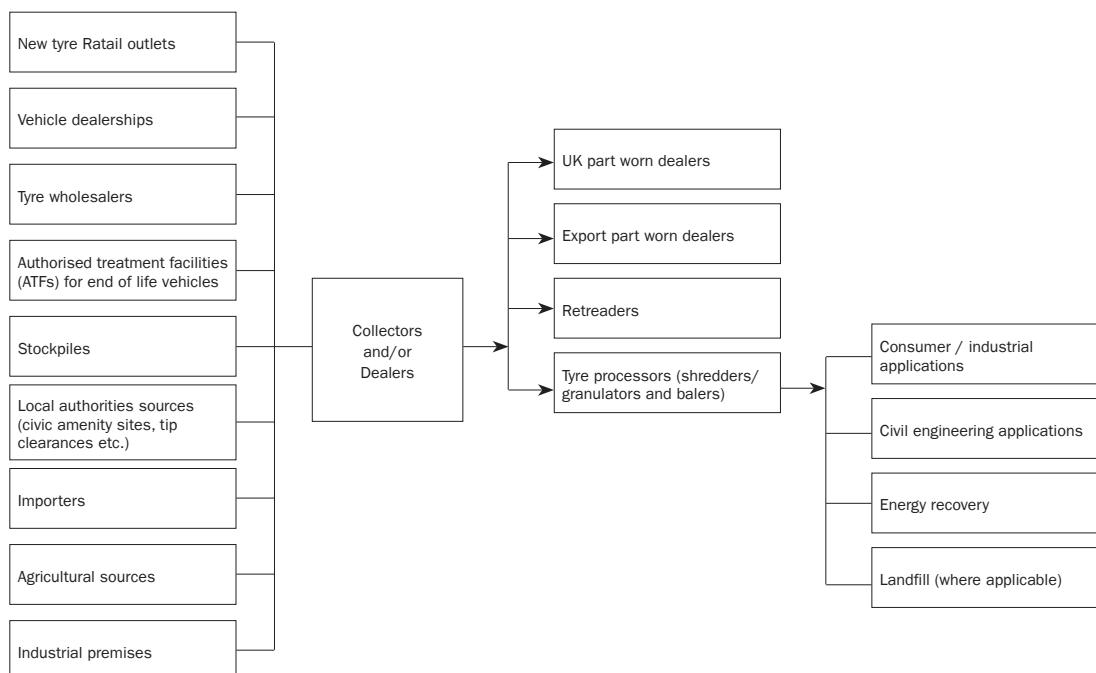
UK, and therefore Northern Ireland, has a duty to report waste arisings to the European Commission under the Waste Statistics Regulation (No. 2150/2002). Organisations therefore need to provide accurate data on waste arisings to NIEA.

7. What costs are associated with end of life tyres in NI?

- **Environmental Disposal Charge(EDC)** – charge levied by new tyre retailers on customers for the disposal of old tyres
- **Collection Charge** – charge applied by a collector to remove the tyres to a processor or other end user
- **Disposal Fee** – the charge paid by the collector to the processor or end-user (often referred to as a ‘gate fee’)

Figure 1 shows a simplified flow diagram of the sources of tyres and where used tyres can end up. This is taken from a report based on a survey³ carried out on behalf of WRAP in 2007 which estimated the costs associated with the disposal of end of life tyres across the UK.

Figure 1 Simple waste tyre market material flow diagram



Source: Waste tyre disposal and collection costs data. WRAP (2007)

This survey was carried out in association with the National Tyre Distribution Association (NTDA) and aimed to give details of the EDC paid by new tyre consumers and the collection charges incurred by new tyre retailers.

Unsurprisingly perhaps the survey found that the EDC paid by new tyre consumers and the collection charges incurred by new tyre retailers varied across the UK. The costs associated with disposal in NI are presented in table 2. The comparison with other regions of the UK is in figures 2 and 3.

Table 2 Average and range values for EDC and collection charge, Northern Ireland

£ per tyre	Environmental disposal charge to consumer (average)	Environmental disposal charge to consumer (range)	Collection charge (average)	Collection charge (range)
Passenger car	1.22	1.00 to 1.25	0.97	0.8 to 1.10
Light commercial vehicle (LCV)	6.01	5.00 to 7.05	3.94	3.00 to 5.00
Truck or bus	9.08	6.50 to 11.75	6.95	5.00 to 8.50
Agri small		5.00 to 10.00		4.50 to 8.00
Agri large		10.00 to 13.50		8.00 to 12.00

Figure 2 Passenger car EDC and collection charge

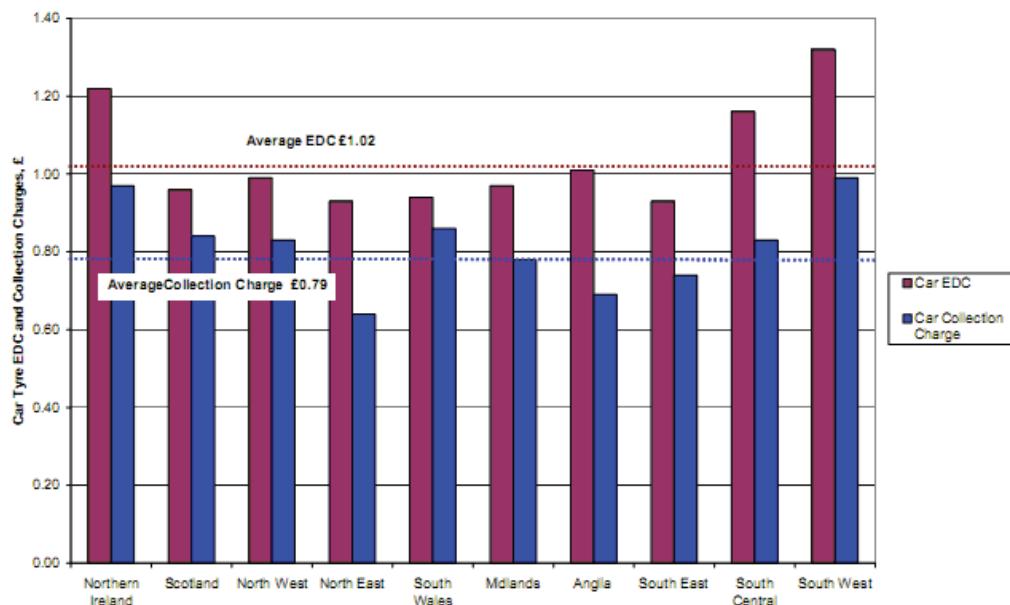
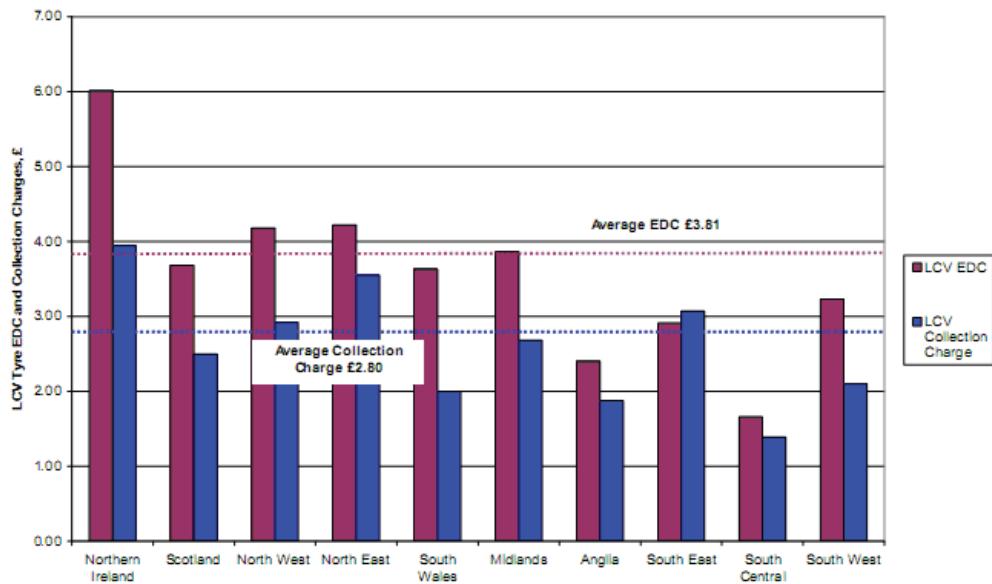
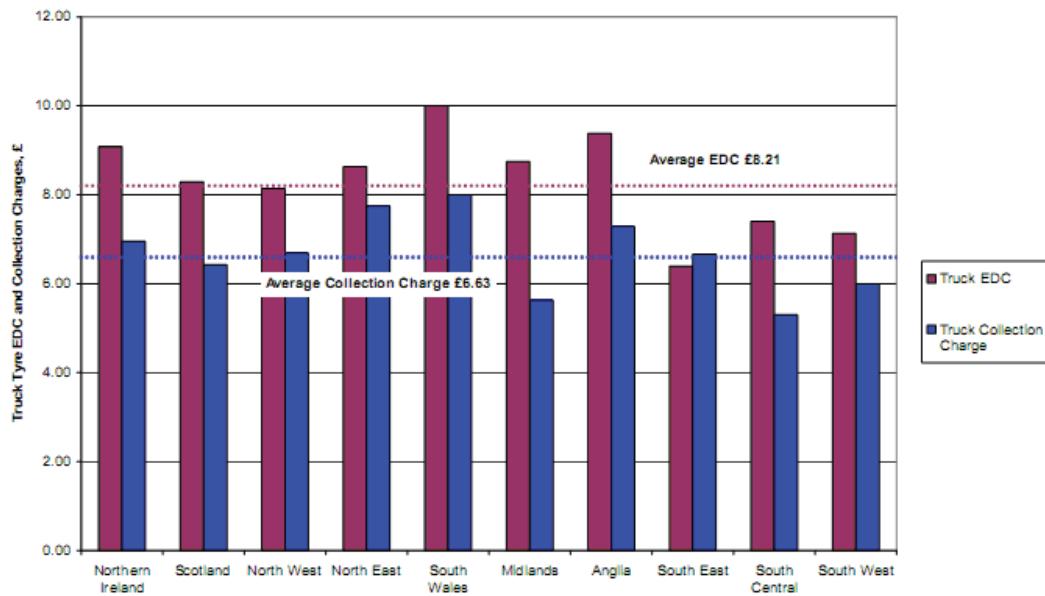


Figure 3 Light Commercial Vehicle (LCV) tyre and EDC collection charges

It is evident that the charges in Northern Ireland are higher than average and generally higher than all other areas of the UK with the exception in figure 2 of the South West of England.

Figure 4 gives similar information for truck tyre EDC and collection charges

Figure 4 Truck tyre EDC and collection charges

8. Collection charges – car tyres

Collection charges from all sources vary by region. The survey states that in NI the charge to retailers, wholesalers and independent garages was 99p per tyre. This is comparable with the charge found in the retailer survey.

9. Departmental Targets

In *The Waste Management Strategy for Northern Ireland 2000* the target was to recover 85% of tyres by 2005 and 100% by 2010.

The Northern Ireland Waste Management Strategy: Towards Resource Management was published in 2006 but doesn't provide a specific target for tyre recovery.

10. Producer Responsibility

According to a report⁴ by the European Tyre and Rubber Manufacturers Association 13 countries currently operate a system where managing the collection and recovery of end of life tyres is carried out by not-for-profit companies financed by tyre producers. The membership of such a company usually includes the national manufacturers and the main importers.

In Europe these end of life management companies are mandated to collect and organise the treatment of an equivalent amount of tyres sold collectively by these companies.

11. Republic of Ireland

TRACS (Tyre Recovery Activity Compliance Scheme Ltd) is a not-for-profit company that aims to provide certification to its registered producers, demonstrating legal compliance. It provides a verifiable audit trail for the proper supply of new tyres and the management of used ones⁵.

Replacement tyres are tracked through a network of producers, retailers and waste tyre collectors who are members of TRACS operating in the tyre industry to eventual consignment at authorised facilities. All members are registered with TRACS.

12. Performance of TRACS

Producer Members: TRACS can account for over 90% of the total units imported;

Supplier: Retail/Replacement Fitters Members; TRACS can account for over 48% of total units.

Collector Information: Waste collectors who are members of TRACS have reported over 72% collection of units supplied to the market.

Farmer Registrations: These occur when a farmer receives tyres from an authorised collector and occurs when a transaction takes place. Farmers have limits on the number of tyres used per square meter of silage pit floor area and on the number of waste tyres on their farms.

4 End of Life Tyres. A valuable resource with growing potential (2010 edition)

5 http://www.tracsireland.ie/images/stories/doc/tracs_annual_report_2009.pdf



Research and Information Service Briefing Paper

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Dr Kevin Pelan

Alternative Uses for Used Tyres

1 Introduction

Since 2003 whole tyres have been prohibited from disposal at landfill under the European Landfill Directive and shredded tyres from July 2006. Environmental policy and legislation has therefore provided the impetus for the development of alternative uses of, and therefore a market for, used tyres.

The fate of end-of-life tyres as recorded in the UK in 2008 is given in table 1¹

Table 1 Fate of end-of-life tyres in the UK in 2008

Fate	Tonne (1000s)	%
Re-use	39	7.7
Export	49	9.6
Re-treading	52	10
Material Recovery	250	49
Energy	95	19
Landfill and unknown	23	4.5
Total	508	-

¹

WR1118: Literature of the use of baled tyres in construction. DEFRA March 2010

More specific uses for used tyres include²:

- **Landscaping** – landscape paving, walkways, porous piping
- **Horticulture** – mulches, composting, drainage infill
- **Construction** – roof tiling, acoustic barriers, waterproof membrane
- **Transport** – traffic management, automotive parts, rubberised asphalt
- **Home and Garden** – carpet underlay, footwear, coasters
- **Facilities Management** – safety flooring, matting, industrial sealers and fillers
- **Sports and recreational** – artificial sports tracks and surfaces, sports barriers, golf and bowling greens (drainage improver)

This paper highlights just some of these uses; in particular the issues surrounding the use of tyres in artificial reefs around the world is considered in more detail.

2 Study commissioned by WRAP (Waste and Resources Action Programme)

WRAP commissioned Environmental Resources Management Ltd (ERM) to carry out a project with two objectives:

- To review the impact of the three year WRAP Tyres Programme and to assess its effectiveness in terms of successes, failures and missed opportunities; and
- To carry out forecasts up to 2015 for the UK use tyre market.

The report³ was delivered in November 2008 but still gives a good indication of the uses for used tyres. In summary the report expects that in terms of changes to the market in the future, ERM believes that:

- the tonnage of tyres sent for retread and reuse will remain fairly constant with a reduction occurring in the export and landfill engineering market.
- the recycling industry is likely to grow as demand for rubber for use in road surfacing or construction increases and as new and emerging technologies such as cryogenics come in to the market.
- energy recovery through burning tyres in cement kilns will remain strong due to a continued need for more environmentally sound alternative fuels.⁴

The following examples are drawn from WRAP case studies.

2.1 Examples

(i) Woodley Sports FC⁵

Installation of a ‘third generation’ artificial sports pitch comprised of long-piled carpet in-filled with sand and rubber particles. The rubber particles are cryogenically derived from used car tyres. Around 100 tonnes of rubber is required for a standard football pitch. This equates to c150 tonnes of used tyres or 21, 000 tyres.

2 Tyres re-use and recycling. WRAP

3 An assessment of WRAP’s tyre programme and a forecast of the UK’s used tyre market up to 2015

4 Ibid

5 http://www.wrap.org.uk/recycling_industry/publications/case_study_4.html

Advantages are:

- lower maintenance costs
- a more consistent playing surface
- greater longevity of the pitch
- increased revenue due to decreased ‘downtime’ of the pitch and the substitution of a virgin material (sand) with another wise waste product.

(ii) Walsall Council⁶

In March 2006 Walsall Council selected Rejuvoflex for the resurfacing of 4,000m² of pathway using the equivalent of about 700 car tyres from their waste tyre stockpile. Rejuvoflex is the top layer and uses about 1 tonne of used tyres (about 100 car/van tyres) per 1,000m² of laid micro-asphalt.

Another product Rejuvomak is a two layer product that includes a specialised underlayer; this combination uses about 3 tonnes of tyres per 1,000m².

Advantages are:

- Typical surface thickness should last over 20 years – equivalent to a new re-laid Tarmacadam surface.
- Patching or re-levelling is achieved using a thicker or double layer
- Portable, manual machinery is used in this cold process which generates little noise or smell during the operation.
- Mix can be prepared away from the site and transported to the site and therefore laid with minimal disruption and at inaccessible sites.

(iii) Shore Protection⁷

Whole truck tyres are used as a barrier (referred to as a tyre raft) to prevent shoreline erosion in the last remaining foreshore in Essex, Copperas Wood. The tyres are placed in a trench to make a barrier two tyres deep and 4 tyres high and are vertically lashed together. A third row of tyres is added every 10 metres to give extra support. The tyres are then backfilled. About 1200 tyres were used to construct the barrier which has successfully halted coastal erosion.

Advantages are:

- Tyres were locally sourced and incurred no charge to the end user.
- Barrier has long term stability
- Tyres replaced aggregate which would only be a short term solution to the problem
- Due to the nature of the site more substantial barriers could not be constructed
- Assembly and construction of the barrier only required unskilled labour – reduced cost.
- Barrier has prevented further loss of shoreline

(iv) Horticultural Mulch⁸

Tyres can be shredded into chips and painted⁹ to provide inert and attractive mulch that reduces the need for routine flower bed maintenance. Current annual demand for Dunweedin mulch is around 350, 000 used car tyres.

6 http://www.wrap.org.uk/recycling_industry/publications/case_study_6.html

7 http://www.wrap.org.uk/recycling_industry/publications/case_study_waste_11.html

8 http://www.wrap.org.uk/downloads/Horticultural_mulch_Summary.cdd59bb2.3912.pdf

9 This is a commercially sensitive technique protected by GB patent held by Dunweedin Ltd

Advantages:

- Stability: the chips weather more slowly than competitive products
- Inertness: rubber tyres chips do not absorb water or nutrients and are harmless to plants and animals
- Low maintenance: rubber chips do not need 'topping up' like wood chips or bark
- Protection from falls

(v) **Construction Blocks¹⁰**

Demand for lighter construction blocks is increasing due to, among other things, manual handling regulations. In addition, the UK construction industry is seeking alternative lightweight fillers for the concrete mix that constitute blocks that address sound and thermal insulation requirements for buildings.

In a research project some properties of the concrete mix were found to have been enhanced by incorporating rubber while others are adversely affected.

Advantages:

- Thermal conductivity and noise insulation properties are enhanced by incorporating rubber
- Improving freeze/thaw resistance
- Increasing impact resistance

Properties adversely affected are:

- Loss of compressive strength (adding cement can address this but it increases the cost of the block)
- High quality rubber chip is required which is 10 times more expensive than Furnace Bottom Ash (FBA), which is currently added to blocks as a filler. This could be addressed if shredding and chipping were integrated into the block making plant.

If the company that took part in this study incorporated 4% rubber aggregate into its lightweight blocks this would equate to 5000 tonnes of used tyres per year displacing approximately 3,500 tonnes of FBA. A 20% market penetration equates to around 20,000 tonnes of used tyres or 4-5% of used tyre arisings.

(vi) **Tyre Bales in an Embankment¹¹**

This case study relates to the use of tyre bales in house building as an alternative to concrete and brick retaining walls in the construction of an embankment to support new residential housing. The embankment was 100m long and utilised approximately 21,000 tyres from cars and commercial vehicles weighing 160 tonnes.

Advantages

- Build costs were around 20% and raw materials costs about 11% of an equivalent brick, mortar and concrete wall.
- Concrete, bricks and mortar have been displaced resulting in decreased carbon emissions and less pressure on virgin quarried material.

10 http://www.wrap.org.uk/downloads/Lightweight_blocks_Summary.5e56b2fd.3768.pdf

11 http://www.wrap.org.uk/downloads/Tyre_bales_in_embankment_Summary.a87a5da7.6157.pdf

(vii) **Tyre crumb for street furniture¹²**

The London Borough of Barking and Dagenham have used bollards made from tyre crumb for traffic calming and pedestrian protection. The bollards are made from 100% recycled tyres.

Advantages

- Although more expensive than comparable-sized bollards made from aggregates they are lightweight and therefore reduce handling and transport costs.
- They will last about 10-15 years and do not require routine maintenance.
- They can withstand collisions of the type normally encountered in car parks and traffic calming environments e.g. 5mph
- The use of the bollards also helps support and publicise the council's sustainability policy.

3 Artificial Reefs

Artificial reefs are human-made underwater constructions. While their main aim is perceived to be the promotion of marine life by establishing a more complex marine habitat they do have other functions. These include acting as breakwaters, providing an 'anti-trawling' system to protect the natural environment from this activity and providing a location to attract divers and surfers and therefore enhance the tourist potential of the area.¹³

There are many examples of reefs composed of different materials:

Rigs to Reefs

The Marine Management Service of the United States adopted national Rigs-to-Reefs policy that supports and encourages the reuse of oil and gas structures for offshore artificial reef developments.¹⁴

Subway Cars

Old subway cars have been used in the establishment of an artificial reef in New Jersey although this programme was stopped when it was discovered that cars previously sunk were disintegrating.¹⁵

Sunken Ships

The HMS Scylla, a frigate decommissioned in 2003, was scuttled on Whitesand Bay south Cornwall in 2004 primarily as a resource for divers. The Scylla reef is a popular dive site and approximately 230 species have been recorded in or around the Scylla to date.¹⁶

Concrete Blocks

The Loch Linne reef on the Scottish west coast, started in 2001 and completed in 2006, is one of the largest experimental reefs in Europe. It is comprised of 6,300 tonnes blocks some solid and some containing a 'void' to create "nesting spaces". These were made from concrete containing a blend of cement and coal ash (8%), and quarry dust.¹⁷

12 http://www.wrap.org.uk/downloads/Street_furniture_Summary.5ffb1e8b.3734.pdf

13 Jensen, Antony (2002). Artificial reefs of Europe: perspective and future, ICES Journal of Marine Science, 59: S3-S13

14 <http://www.gomr.boemre.gov/homepg/regulate/environ/rigs-to-reefs/information.html>

15 http://www.nj.com/news/index.ssf/2010/06/despite_end_to_subway_car-reef.html

16 http://qsr2010.ospar.org/media/assessments/p00438_supplements/p00438_suppl_4_recreational_dive_sites.pdf

17 http://qsr2010.ospar.org/media/assessments/p00438_supplements/p00438_suppl_2_improving_marine_resources.pdf

Quarried Rock

The Torness reef, off the south-eastern coast of Scotland, was constructed in 1984 from quarried rock derived from the construction of a nuclear power station.¹⁸

Coal Ash

Ash blocks created from Pulverised Fuel Ash (PFA) were used for reef construction in Italy.¹⁹

3.1 Artificial Reefs made from used tyres

In addition to these construction materials car tyres have been used to construct artificial reefs around the world. However, used car tyres have proved a controversial construction material and their ability to enhance marine diversity has also been questioned.

Examples

USA

Two million tyres were used to construct an artificial reef off the coast of Fort Lauderdale in 1972. However due to inadequate engineering tyres broke loose in storms and washed ashore and also caused damage to natural reefs. In addition the tyres did not enhance the diversity of marine life as had been expected.²⁰ Other reefs were constructed off the coasts of New York, New Jersey, California and North Carolina.

Malaysia

In the 1980s Malaysia embarked on an artificial reef programme. Approximately 90% of the reefs were constructed using old tyres.²¹

Australia

A number of artificial reefs were constructed in South Australian waters to enhance primary production of organisms and fish numbers of recreational importance. Studies indicate that this has been successful.²²

UK – Poole Bay

The Poole Bay reef was established as an experimental reef and initially consisted of Pulverised Fuel Ash (PFA) bound with cement and aggregate; tyres were added in 1998. The reef was monitored for 10 years. Colonisation of marine life was rapid and showed no significant uptake of tyre compounds.²³

18 <http://icesjms.oxfordjournals.org/content/59/supplement/S3.full.pdf>

19 Relini, G., Sampaolo, A., and Dinelli, G. (1995b). Stabilised coal ash studies in Italy, Chemistry and Ecology, 10, 217-231.

20 Tyre reef off Florida proves a disaster. USA Today

21 Alan T. White et al. (1990). Artificial Reefs for Marine Habitat Enhancement in Southeast Asia. International Centre for Living Aquatic Resources Management, Manila.

22 Branden, K.L., Pollard, D.A., and Reimers, H.A. (1994). A Review of Recent Artificial Reef Developments in Australia. Bulletin of Marine Science, Volume 55, Numbers 2-3. September 1994, pp. 982-994(13)

23 K.J. Collins et al. (2002). Environmental Impact assessment of a scrap tyre artificial reef. ICES Journal of Marine Science, 59: S243-S249



Research and Library Service Briefing Paper

Paper 000/00

26 September 2011

NIAR 551-11

Dr Kevin Pelan

Poole Bay Reef and Regulation

1 UK – Poole Bay

The Poole Bay reef was established as an experimental reef and initially consisted of Pulverised Fuel Ash (PFA) bound with cement and aggregate. Five hundred tyres were added in various types of modules in 1998.

The aim of this experiment was to identify any leachates from tyres and whether they are taken up by marine organisms. This was achieved by detailed biological and chemical monitoring of the developing biota on the site over a period of ten years.

Colonisation of marine life was rapid and showed no significant uptake of tyre compounds.¹

The Poole Bay reef was only licensed after extensive consultations with MAFF², local authorities, the Environment Agency, Department of Transport and the Regions³ and English Nature.⁴

1 K.J. Collins et al. (2002). Environmental Impact assessment of a scrap tyre artificial reef. ICES Journal of Marine Science, 59: S243-S249

2 The Ministry for Agriculture Fisheries and Food (now Defra)

3 Responsibilities now split between Department for Transport and the Department for Communities and Local Government

4 Now known as Natural England

2 Regulatory Framework

2.1 The OSPAR Convention

The UK is a signatory to the Convention for the Protection of the Marine Environment of the North East Atlantic (the “OSPAR Convention”). Artificial reefs are one of a number of human activities identified in the OSPAR Biodiversity Strategy as having actual and/or potential adverse effects on the marine environment and as such have been included in a series of assessments through the OSPAR Joint Assessment and Monitoring Programme (JAMP).⁵

However there is currently no international legally binding regulations dealing specifically with the regulation of artificial reefs and the OSPAR Convention does not specifically provide for the regulation of artificial reef construction or placement.

OSPAR did produce guidelines, “OSPAR Guidelines on Artificial Reefs in relation to Living Marine Resources”. These provide guidance on the studies that should be undertaken prior to approval of artificial reefs e.g. materials, design, location, monitoring and experiments.⁶

2.1.1 The London Convention/Protocol

The UK is also a signatory to the Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter, 1972, commonly known as the London Convention. The London Protocol was adopted in 1996 to modernise the Convention and under this protocol all dumping (at sea) is prohibited with the exception of eight categories of waste under strict criteria. These are:

- Dredging material;
- Sewage sludge;
- Fish waste;
- Vessels and platforms;
- Inert, inorganic geological material;
- Organic material of natural origin;
- Bulky items (only when other options are not available); and
- Carbon dioxide streams for carbon dioxide capture processes for sequestration.

Signatories to the Convention who are considering the deployment of an artificial reef are expected to take this guidance into account when assessing the proposal. In the London Convention and Protocol/UNEP Guidelines for the Placement of Artificial Reefs it states that

“In the past, tyres were also used to create reefs in a number of countries. Such reefs are, however, highly unstable over time, do not achieve their purpose, and may contribute to degradation of the marine environment”.⁷

As noted above there is no specific legislation relating to artificial reefs, however relevant legislation which the Department of the Environment would apply to an application to deploy an artificial reef would be the Food and Environmental Protection Act 1985 (FEPA) Part II – Deposits in the Sea.

5 OSPAR Commission (2009). Assessment of construction or placement of artificial reefs

6 OSPAR Commission (2009). Assessment of construction or placement of artificial reefs, p. 8

7 London Convention and Protocol/UNEP Guidelines for the Placement of Artificial Reefs, p.4

3 Is the Poole Bay Reef still in operation?

This reef is still in operation in the context that, as an experimental reef, it is still undergoing biological and chemical monitoring.

Dr Ken Collins⁸ who still oversees the experimental reef has stated⁹ that he has no concerns about using tyres as a reef construction material in seawater either from a chemical or biological perspective.

8 Senior Research Fellow, School of Ocean and Earth Science, University of Southampton

9 Personal communication



Research and Library Service Briefing Paper

Paper 000/00

22nd of March 2012

NIAR 183 - 2012

Katrina Walsh

Capacity for recycling or reprocessing tyres in Northern Ireland

Capacity for recycling and reprocessing of tyres in Northern Ireland is at present rather limited with only two companies currently operating.

R4 recycling is located in the Seagoe Industrial Estate in Portadown. R4 Limited provides multiple services including the retreading of used truck tyres and the production of tyre bales to PAS 108 standard.

R4 tyre bales can be used for numerous applications including:

- Road sub bases
- Retaining Walls
- Gabions
- Waterway Control
- Flood Control
- Mud Slide and Erosion Control
- Soil Elevation
- Soakaways
- Impact Barrier for Motorways and Racetracks
- Shock Absorption for Foundation Walls, Firing Ranges and Bunkers

■ Sound Barrier along Motorways and Railways

According to R4 the tyre bales they produce are lightweight, have excellent thermal insulation, high permeability, are uniform and are recycled and not made from virgin material.

OM Recycling is a company based in Mayobridge that also manufactures tyre bales to a PAS 108 specification.¹ OM exports tyre bales to three companies in Japan and Korea for use as Tyre Derived Fuel (TDF).

OM also produces softread from used tyres. This is a high quality wire free 20 millimetre rubber strip which can be used in equestrian arenas, gallops and play parks.²

Treads Recycling Ltd of Dungannon was until recently also recycling tyres although the status of this company is currently unclear.

1 OM Recycling Company Presentation, Gerry Farmer, Managing Director
2 OM Recycling Company Presentation, Gerry Farmer, Managing Director



Research and Library Service Briefing Paper

Paper 000/00

22nd March 2012

NIAR 185 - 2012

Katrina Walsh

The impact of EU directives on tyre related offences

1 Introduction

Tyres are currently covered under a broad range of legislative documents. Some of which identify tyres specifically, others include tyres as one of many waste-streams.

2 Legislation

The European Tyre Recycling Association has identified several pieces of EU legislation that impact on the recycling of tyres and provides an explanation as to why.¹

Year	Legislation	Impact on tyre recycling
1999	Landfill Directive (1999/31/EC)	Includes a total ban on the landfilling of passenger car and truck tyres (whole 2003; shred 2006). Some other groups of tyres are excluded from the ban, including off-road, motorcycle and bicycle tyres.

¹ European Tyre Recycling Association, Basic Legislation

Year	Legislation	Impact on tyre recycling
2000	End-of-Life-Vehicle Directive (2000/53/EC)	Vehicle dismantlers are required to remove tyres prior to vehicle demolition to ensure that tyres and/or tyre parts do not go to landfills
2000	Incineration of Waste Directive (2000/76/EC)	Could, over time according to the European Tyre Recycling Association, potentially limit the use of tyres in older cement kilns that could not be retro-fitted to sufficiently reduce emissions from tyre burning. Several older cement kilns were decommissioned.
2003	COM(2003)572 Towards a thematic strategy on the Sustainable use of natural resources with a focus on material recycling	Stated the Commission's goal of becoming a recycling society as a means of reducing reliance upon natural resources and substituting secondary materials.
2005	COM(2005)666 Taking sustainable use of resources forward	Prevention and recycling of waste ; the waste hierarchy was further defined and a working definition of 'recycling' provided
2005	COM(2005)670 Thematic strategy on the sustainable use of natural resources (Annexes, IA)	Reaffirms the five-step management hierarchy
2006	Regulation (EC) 1013/2006 Revisions on the shipments of waste	Requirements for the notification of waste transports were strengthened, requiring complete notifications of wastes, including tyres, within the EU
2006	REACH Regulation (EC) 1907/2006 and Directive 2006/121/EC adapting 67/548 EEC to REACH : (Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals)	Applies to all chemicals, making industry bear responsibility to manage the risks posed by chemicals and provide appropriate safety information to their users. Requiring the registration of substances including those that have been recycled, including tyres and granulate, etc.



Research and Library Service Briefing Paper

Paper 000/00

22nd March 2012

NIAR 184 - 2012

Katrina Walsh

Waste Framework Directive End-of-Waste criteria in other jurisdictions

- 1 Interpretation of EU Waste Framework Directive End-of-Waste criteria in relation to tyres in other parts of the UK, Ireland and other EU member states

England and Wales

The WRAP Tyres Programme defines scrap tyres as end of life tyres that have been removed from road and off road vehicles and agricultural/earthmoving equipment and not put to immediate use. The WRAP Tyres Programme has developed and created end uses for the recovery and reuse of used tyres. The Civil Engineering, Construction and Industrial sectors have been identified as having potential for the following applications:

- Sea Defences
- Landscaping - paving, walkways, porous piping
- Landfill Engineering
- Retreading/Reuse
- Play and Sports Industry – sports barriers, golf and bowling greens, substitute for aggregate in the surfacing of sports and play areas [ODPM, 2002]
- Flooring - safety flooring, matting
- Equestrian surfacing

- Fuel - high-energy value similar coal (has been used as a cement-making fuel worldwide for the last ten years [Blue Circle, 2003]), incinerated with energy recovery
- Home and Garden - mulches, composting, drainage infill, carpet underlay, footwear, coasters
- Transport - lightweight fill material, sealants, asphalt/rubber stress absorbing membrane inter-layer, traffic management, automotive parts

WRAP and the BSI (British Standards Institution) have prepared Publicly Available Specifications (PAS) for the manufacture and storage of size reduced tyre materials (PAS 107) and for production of tyre bales for the use in construction (PAS108). These specifications standardize the material.¹

The Environment Agency has published a Quality Protocol in relation to tyre-derived rubber materials. This document sets out end of waste criteria for the production and use of tyre-derived rubber materials from source-segregated waste tyres. If these criteria are met, tyre-derived rubber materials will normally be regarded as having been fully recovered and to have ceased to be waste.

The purpose of the Quality Protocol is to:

- Clarify the point at which tyre-derived materials cease to be waste
- Provide users with confidence that the materials conform to an approved material standard
- Provide users with confidence that materials are suitable for use in designated applications
- Protect human health and the environment

The criteria which must be met in order to no longer qualify as waste are to,

- require no further processing before use
- have been produced using only source-segregated waste tyres
- meet the requirements of PAS 107
- meet the requirements of engineering standards if specified for a specific end use
- meet any additional requirements specified by the customer
- have been produced using either ambient or cryogenic processing technologies
- have been processed to a particular size category
- be destined for one of the uses set out in the Quality Protocol²

A Quality Protocol for tyre bales is currently being prepared but is not yet published therefore baled tyres are still regarded as waste. In May 2011 the Environment Agency released a Regulatory Position Statement. This Statement sets out how the use of tyre bales in civil engineering projects and landfill operations will be regulated until the Quality Protocol is released. It applies only to England and Wales.

In order to encourage the continued use of PAS 108 tyre bales, in the place of virgin materials, the Environment Agency stated that it will support local enforcement decisions not to pursue an application for an environmental permit or variation in relation to the waste operation for the use and associated storage of tyre bales where certain requirements are met.³ One of these requirements is that the proposed use be notified to the Environment Agency.

1 WRAP Recycled tyres, http://aggregain.wrap.org.uk/specifier/materials/recycled_tyres.html

2 WRAP and Environment Agency, Tyre-derived rubber materials Quality Protocol

3 Environment Agency, Regulatory Position Statement, Use of PAS 1081 tyre bales in civil engineering and landfill infrastructure works

Scotland

Waste Management Licensing (Scotland) Regulations 2011 provides an exemption for tyre bales to be used for the construction, maintenance or improvement of buildings, roads, railways, airports, docks, other transport facilities, recreational facilities and drainage or for engineering works relating to the water environment⁴. Waste tyres are allowed to be used under this exemption provided they are baled in accordance with PAS 108. The amount of baled tyres that can be stored at any one time is restricted to less than 100 tonnes or the amount required to complete the project.⁵

In Scotland tyres baled to PAS 108 standard remain waste until an end-of-waste case has been made to the Scottish Environmental Protection Agency (SEPA)⁶.

Ireland

In December 2010 the Irish Environmental Protection Agency released its final position on end-of-waste status for tyre bales. The EPA stated that tyre bales cannot achieve end-of-waste status in accordance with article 6 of EU Directive 2008/98/EC on waste. It continued that tyre bales remain classified as waste in all circumstances and subject to control and regulation as waste. However tyre bales are used in Ireland but are subject to waste authorisation as they are still considered waste.

Other EU Countries

In 2006 WRAP produced a paper on the classification of tyres in other EU countries; this is the latest comparable data available and may be out of date.

Table 1: Legislation and Standards on Tyres and Tyre Bale Recycling in other EU countries⁷

Country	Legislation	Standards
Belgium	There are general legislations on waste management but there is no specific legislation governing recycling of used tyres and tyre bales in all three regions in Belgium.	There is no specific standard on tyres and tyre bale recycling.
Finland	There is a general legislation on recovery and disposal of discarded tyres, but there is nothing specific on tyres reuse or recycling.	There is no national standard in Finland that deals specifically on tyres and tyre bale recycling.
Germany	There is no specific regulation governing tyres and tyre bale recycling.	There is no national standard in Germany that deals specifically with tyres and tyre bale recycling.
The Netherlands	There is no specific regulation governing tyres and tyre bale recycling.	

4 Waste Management Licensing (Scotland) Regulations 2011

5 SEPA. Paragraph 19 Exemption Waste for construction and other “relevant work”

6 SEPA, Inspection criteria for the shipment of tyres

7 WRAP (2006), Research on Legislation, National and International (ISO) Standards and Best (industry) Practices for Tyres and Tyre Bale Recycling



Research and Library Service Briefing Paper

Paper 000/00

22nd March 2012

NIAR 182-12

Mark Allen

Volume of tyres a farmer can keep on their farm before requiring a waste management licence

The Waste Management Licensing Regulations (Northern Ireland) 2003¹ contain provisions (paragraph 17) in the form of exemptions that enable farmers to store tyres without the need for a waste management licence.

Exemption 17 of these regulations dealing with **Storing agricultural waste intended for recycling or recovery, in a secure place**² enables farmers to store 250 tyres providing they meet the following conditions.

- Storing and bulking up materials to be recycled at intermediate depots, that is, between the points where first collected and the final recovery point;
- Wastes that are permitted under this exemption, subject to certain weight or volume restrictions are: paper and cardboard, textiles, glass, plastic, steel and aluminium cans, aluminium foil, waste food or drink cartons, articles which are to be used for construction in their existing state, solvents, refrigerants and halons, tyres, waste mammalian protein and tallow;
- Each kind of waste stored on the premises under this exemption must be kept separately;

¹ The Waste Management Licensing Regulations (Northern Ireland) 2003

² Agricultural Waste Guidance, Northern Ireland Environment Agency, August 2003, page 7

- You must be the occupier of the land, or have the consent of the occupier of the land, or be otherwise entitled to carry out the activity on that land.

Where farmers meet these conditions and wish to apply for an exemption there is currently a cost of £785 pounds³, which covers a 3 year period and thereafter needs to be renewed.

The Waste Management Licensing Regulations (Northern Ireland) 2003 have been in force since December 2003 and any farmers bringing new tyres onto their premises since then are required to either have a waste management licence or to have paid for and received an exemption.

Speaking to DOE officials it seems that farmers who had tyres on their premises prior to December 2003 are not required to have either a waste management licence or an exemption for any tyres on the farm prior to December 2003 and which are still there. Any new tyres brought onto the farm after this date however will require either a waste management licence or an exemption.

It is however unclear as to how the number of actual tyres held on farms is confirmed as there appears to be no inspection regime linked to the issuing of exemptions. In this regard it would appear that the onus is very much on *Duty of Care*⁴, meaning that the suppliers of waste tyres can only provide/transfer tyres to individuals who hold a waste management licence or valid exemption.

3 Waste Management Charging (Northern Ireland) Scheme 2011, Fees and Charges for Exemptions, NIEA
4 Waste Management The Duty of Care - A Code of Practice, NIEA,



Research and Library Service Briefing Paper

Paper 000/00

22nd March 2012

NIAR 180-12

Bronagh Gillen

Length of time taken to issue a waste management licence

1 Northern Ireland¹

The Department of Environment (DOE) issue waste management licences in Northern Ireland. The statutory time period for determining a new application for a waste management licence is 4 months. The DOE's determination of the application commences when the application is deemed to be 'Duly Made', and depends to a large extent on the quality of the information provided by the applicant (or their Agent).

This processing period can, if required, be extended by formal written agreement between the applicant and the DOE.

From 1 April 2011 to date, 42 new waste management licence applications have been received and 15 have been issued. The average processing time for the 15 that have been issued is 109 days – or 3.5 months.

Of the 27 that have not yet been determined, 18 were received in the last 4 months and 4 have been received between 6 and 11 months ago. These 4 applications have been delayed because of outstanding planning, water discharge or technical competency issues which the applicant/DOE needs to resolve with other Departments/Bodies.

1

Information obtained via written response from the Department of Environment, 16 March 2012.

2 Comparative analysis

2.1 England and Wales²

In England and Wales, applications for environmental permits must be made if the applicant carries out any activity or operation that is covered by the term 'regulated facility'³. Applications are made to the regulator – either the Environment Agency or local authority. There are 2 main types of permits – standard and bespoke. A standard permit is issued to operators whose activity is able to comply with a set of standard rules. A bespoke permit contains site-specific conditions. It can be adapted to specifically address the needs of the applicant. They are generally more expensive and take longer to process than a standard permit because the environmental risks and impact of the activity or operation must be assessed.

The amount of time it takes to process a permit depends on the complexity and whether it needs public consultation. The regulator must accept or refuse applications for an environmental permit within:

- three months if the application does not require public consultation
- four months if the application requires public consultation
- a longer period if agreed with the regulator

The determination period starts when the regulator has received a duly made application. If the regulator issues a notice for further information, the time is halted. It will start again when the regulator has received the required information.

If the regulator has not determined the application within the time limit or any agreed extended time limit, the applicant can give the regulator written notice that their application is deemed to have been refused. Applicants must take into account any time where the clock has stopped for the regulator to obtain further information. Applicants can then appeal to the Secretary of State (in England) or Welsh Ministers against the regulator's refusal.

2.2 Scotland⁴

In Scotland, waste management licenses are granted for certain activities. Licenses seek to ensure that waste management facilities do not cause pollution; cause harm to human health; or become seriously detrimental to local amenities. The licence is issued by the Scottish Environmental Protection Agency (SEPA).

With reference to the length of time it takes to issue a waste management licence, SEPA state that the target decision time period is 4 months. During this time, more information may be sought from the applicants or it may be requested that proposals be advertised to the public. The decision time period will be halted until the request is carried out.

2 Information compiled from:
Business Link, Environmental permits. Available at:
<http://www.businesslink.gov.uk/bdotg/action/layer?topicId=1086287989>
Welsh Government Business Information, Environmental permits. Available at: <http://business.wales.gov.uk/bdotg/action/detail?itemId=1086309179&site=230&type=RESOURCES>

3 Regulated facilities include waste operations, installations and mobile plant carrying out certain industrial, waste and intensive agriculture activities, water discharge and groundwater activities and mining waste operations

4 Scottish Environment Protection Agency, Waste Management Licence Application Forms. Available at:
http://www.sepa.org.uk/waste/waste_regulation/application_forms/waste_management_licence.aspx



Research and Library Service Briefing Paper

Paper 000/00

14 March 2012

NIAR 181-12

Bronagh Gillen

Producer responsibility system for tyre disposal in Europe

1 Context

Currently there are 16 countries that operate a producer responsibility system for managing end-of-life tyres in Europe. These are: Belgium, Estonia, Finland, France, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden and Turkey.¹ The European Tyre and Rubber Manufacturers' Association (ETRMA) has reported that in 2010, EU countries operating under producer responsibility scheme represented 44% of used tyres in the EU. This ratio has risen to 57% in 2011 as a consequence of Italy joining the number of countries under the scheme.²

The general trend in Europe regarding end-of-life tyre producer responsibility is that it is managed by not-for-profit organisations which have been set up by the national manufacturers' and major importers.

In Europe, a tyre producer can generally be defined as a manufacturer or an importer, or distributor who acquires their tyres from abroad. This can include vehicle manufacturers who import cars into the market with tyres. This briefing paper seeks to highlight examples from other European countries that operate a producer responsibility system for end-of-life tyres.

1 European Tyre and Rubber Manufacturers' Association (ETRMA), End of life tyres- A valuable resource with growing potential. 2011

2 *Ibid.*

2 Examples

2.1 Portugal³

In Portugal, Valorpneu is a non-profit organisation that manages the collection and final disposal of all used tyres. Valorpneu has established a Used Tyres Management Integrated System that traces responsibility from when new or used tyres are brought into the country to their end-of-life destination. Each tyre brought into the national market must inform Valorpneu and sign a contract with them. An 'Eco-value' charge is levied to the consumer for each tyre sold. The 'Eco-value' cost per tyre ranges from €1 for a standard car tyre to €7.81 for a truck. This revenue finances Valorpneu. There are a total of 1,288 tyre 'producers' registered with Valorpneu.⁴

With regards to the collection of used tyres, there are various collection points distributed throughout mainland Portugal, the Autonomous Region of the Azores and the Autonomous Region of Maderia. Individuals and companies deposit their unwanted tyres here at no cost. Valorpneu then manage the collection from these points and the routing of the tyres to final destination points (recyclers and energy recovery agents). A network of 23 transportation agents is responsible for transporting the tyres from collection points to recyclers and recovery agents. Transportation agents are appointed by Valorpneu.

2.2 France⁵

The French Environmental Code requires tyre distributors, namely those that sell tyres or vehicles equipped with tyres (e.g. car dealers), to take back, free of charge, used tyres in the limit of the tonnage and type of tyres that they sold in the previous year. Tyre producers are required to collect every year, at their own expense, used tyres within the limit of the tonnage of their sales in the previous year. This includes collection from distributors, storage facilities and local authorities. Producers can group together to fulfil their duty. This has been seen in the establishment of Aliapur.

Aliapur is the main company established for the purpose of recovering used tyres in France. Its founding members are 7 tyre manufacturers who are also its principal customers. The founding manufacturers make up 70% of the annual yearly circulation of tyres. Aliapur have been contracted by approximately 240 producers to collect and recover their used tyres. The producer responsibility system is financed by adding an 'eco-contribution' onto the price of every new tyre. Recovery prices range and are dependent on the type/weight of the tyre.

Aliapur contracts 35 'collectors' to provide collection services throughout France. Tyres are then brought to one of the 13 processing facilities available before they are transferred to one of 27 industrial recyclers.

2.3 Sweden

Producer responsibility in Sweden has been in place since 1994. Producer responsibility is laid down by law and covers 5 industries namely packaging, tyres, newsprint, end-of-life vehicles (End of Life Vehicles) and waste electrical and electronic equipment (WEEE). With regards to tyres, a total of 75,000 tonnes was converted into scrap material during 2008.⁶ The Swedish Tyre Recycling Association (SDAB) estimates the recovery rate of scrapped tyres to be 97%. More than half of the types were used in the cement industry or thermal power

3 Information from Valorpneu. Available at: <http://www.valorpneu.pt/default.aspx?lang=ing>

4 Valorpneu, Number of tyre producers. Database accessed 12.03.12 Available at: http://www.valorpneu.pt/artigo.aspx?caso=SERVICO&lang=ing&id_object=84&name=Producers

5 Information from Aliapur. Available at <http://www.aliapur.fr/>

6 Swedish Environmental Protection Agency, Producer responsibility. Available at: <http://www.swedishepa.se/In-English/Start/Products-and-waste/Waste/Producer-responsibility/>

plants.⁷ The SDAB is a non-profit organisation and is owned by DFTF (the trade organization for tyre-, rim- & equipment suppliers) and DRF (The Swedish National Association of Tyre Specialists). Consumers accept their environmental responsibility by paying a special recycling charge when they purchase new tyres.

2.4 Poland⁸

Centrum Utylizacji Opon Organizacja Odzysku S.A (CUO) was established by 6 tyre manufacturers to manage the collection, transport and recovery of end-of-life tyres. The company estimate that it controls approximately 65% of the domestic market.

2.5 Estonia⁹

The Estonian Tyre Association is a non-profit organisation that organises the collection and recycling of end-of-life tyres. Each month producers have to declare primary sales for the previous month to the Association. An invoice is then issued to the producer for the relevant recycling fee.

Figure 1 - Producer responsibility for end-of-life tyres in Europe¹⁰



Legend:
█ producer responsibility (PR)
█ tax system
█ free market system

* The regulatory framework has changed in Hungary: from January 2012, tyre manufacturers will individually organise the fulfilment of their producer responsibility. Hence HUREC does not take on anymore in a collective way the operational fulfilment of the ELT producer responsibility.

7 Swedish Environmental Protection Agency, Collect and Recycle, 2008. Available at <http://www.swedishepa.se/Documents/publikationer/978-91-620-6328-3.pdf>

8 Information compiled from Centrum Utylizacji Opon Organizacja Odzysku S.A. Available at: <http://www.utylizacjaopon.pl/en/>

9 Information compiled from the Estonian Tyre Association. Available at: http://www.rehviliit.ee/web2/?cat_ID=13&page_id=32

10 ValorPneu, Management of Used Tyres in Europe. Available at: http://www.valorpneu.pt/artigo.aspx?lang=ing&id_object=336&name=Management-of-Used-Tyres-in-Europe



Appendix 6

Other Papers submitted to the Committee

R4 Ltd

R4 Tyre Recycling
We R4 a better environment

September 23, 2011

R4 *Economy in Equilibrium*

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R4 Limited is Northern Ireland's 1st registered waste disposal site for the recycling and recovery of waste tyres.

R4 has achieved accreditation to ISO14001 the Internationally recognised Environmental Management System and achieved the Investors In People Award.

Customer base
R4 Limited has already engaged business with a diverse range of clients the following industry sectors.

- Tyre retailers and wholesalers
- Car Showrooms / Garages
- Local Authorities & Government Agencies
- Public/Private Sector Agencies
- Haulage / Road Transport / Logistics Organisations
- Vehicle Manufacturers
- Vehicle Dismantlers / End of Life Vehicle Reprocessors
- Private Individuals

R4 currently offer free confidential practical advice to organisations concerned about tyre disposal and are actively engaged in promoting awareness on tyre related issues throughout Northern Ireland to a number of key stakeholders

Technical Expertise
R4 Limited has key personnel with a proven track record of expertise in the tyre arena.
R4 Limited is operated under the expertise of Managing Director Lynn Kerr, a member of the Chartered Institute of Wastes Management and the NI Representative of the Retread Manufacturers Association. Mrs Kerr has already gained over 20 years experience operating in the tyre industry. Mrs Kerr is also a member of the Federation of Small Business an Ambassador for Craigavon Borough Council and a member of the Enterprising Women's Network.

Unique Characteristics
R4 Limited is Northern Ireland's only manufacturer of tyre blocks.
The Company offers tyre recovery and disposal services to a wide customer base

Service Reliability
R4's tyre collection service is well established and fully operational ensuring a sustainable legitimate collection service. R4 are committed to providing & promoting the environmentally preferred option that our customers demand, and there is also the need to demonstrate to our clients that we have a long term sustainable disposal route.

Green credentials
The green credentials of R4 Tyre recycling are deeply embedded in the philosophy of the whole business. R4 have asked Arena an environmental charity promoting practices that enhance business impact on the environment, to carry out a waste minimisation survey at the factory and as a consequence of that have put in place stringent waste minimisation procedures. As customers and consumers become environmentally aware R4 are not content to rest on their laurels and insist upon the highest





CIWM AFFILIATED ORGANISATION





R4 Tyre Recycling
We R4 a better environment

September 23, 2011

R4 Limited produce tyre bales to the new PAS 108 standard. Copies of this standard can be downloaded from the WRAP website <http://www.wrap.org.uk/construction/tyres>. The PAS 108 provides detailed information and full product specifications.

As the list of successful applications and projects using tyre bales continues to grow we have updated our site with the latest examples.

This brochure is available to view or download at: www.rfour.net/tyrebales.pdf

Suggested Applications for Tyre Bales

- Road sub bases
- Retaining Walls
- Gabions
- Waterway Control
- Flood Control
- Mud Slide and Erosion Control
- Soil Elevation
- Soakaways
- Impact Barrier for Motorways and Racetracks
- Shock Absorption for Foundation Walls, Firing Ranges and Bunkers
- Sound Barrier along Motorways and Railways

Tyre Block Characteristics

- Lightweight - low earth pressure
- Excellent thermal insulation
- High permeability
- Structural Load Capacity
- Uniformity and size of block
- Recycled not virgin material

Home

About us

Tyre bales

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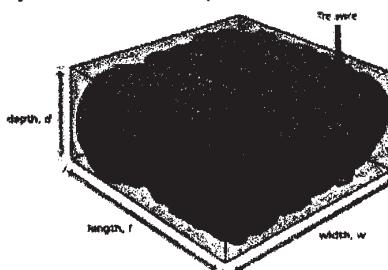
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Figure 1 - Reference sketch of tyre bale



OM Tyre Recycling Presentation

OM Recycling

Company Presentation

**Gerry Farmer
Managing Director**

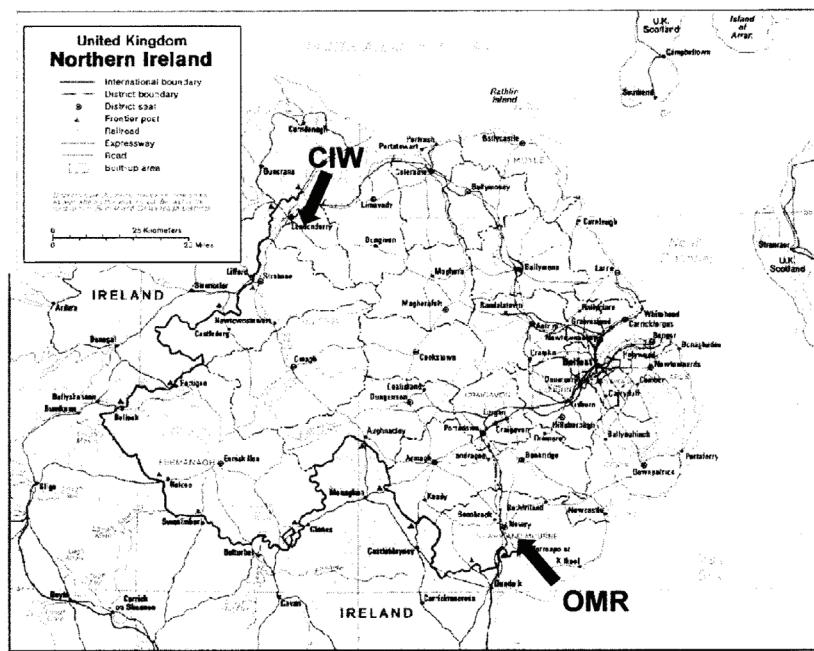
The City Waste Group

The City Waste Group is comprised of City Waste Ltd in Derry and OM Recycling in Newry. The Group operates recycling facilities providing customer services throughout Northern Ireland.

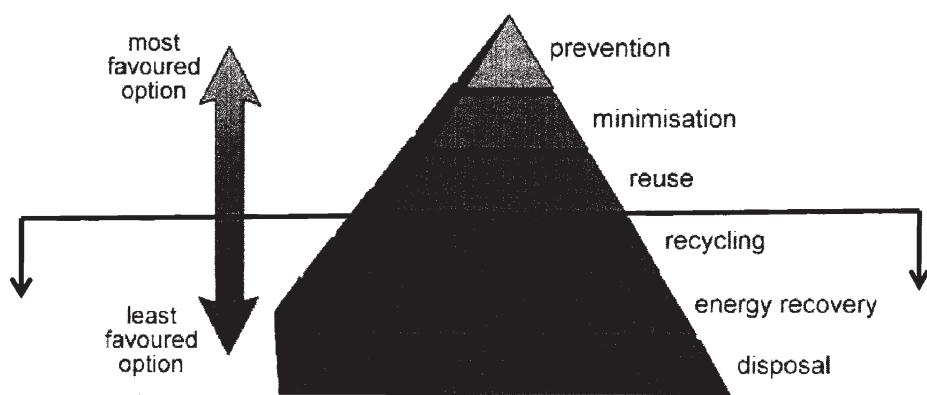
The Group is highly focused on the Recycling of incoming waste streams using a combination of manual and mechanical operations. Recent years have seen significant investment in the latest technologies that in turn have increased the Groups Recycling capabilities.

We feel that Resource Recovery plays a vital part in the 'Race Against Waste' and we have positioned the City Waste Group to meet the challenge.

City Waste Group



CWG Core Principles



Waste Hierarchy

Customers

The City Waste Group service a broad range of customers throughout the Public & Private Sector: *Examples*

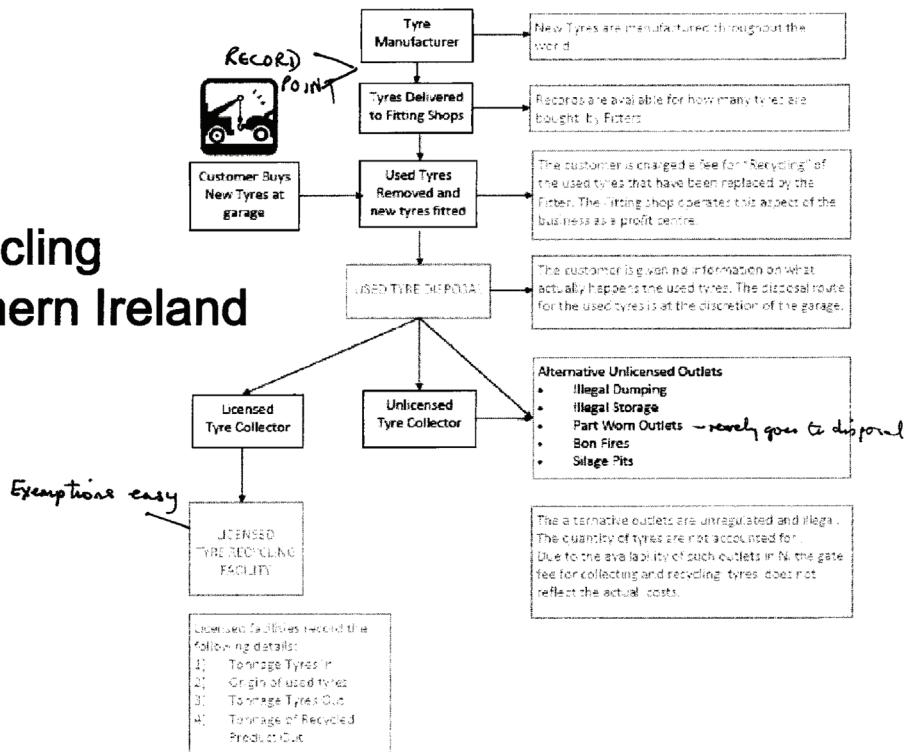
Public:

Derry, Limavady, Coleraine, Magherafelt, Strabane, Ballymoney, Fermanagh & Craigavon District Councils

Commercial:

ASDA	Dunnes	Mc Donalds	PW Tyres	Modern Tyres
SDC Trailers	OMEGA	Kerry Group	Moy Park	REGEN
NWP	RECYCO	Heron Bros	Mc Gowans	VEOLIA

Tyre Recycling Northern Ireland





"How can we help?"

Northern Ireland needs to improve the infrastructure for tyre recovery. If we are to prevent disposal of tyres to landfill and uncontrolled burning of tyres. The Environment and Heritage Service are bringing together the whole industry - retailers, used tyre collecting businesses and reprocessors - to discuss these issues and to promote sustainable disposal of used tyres.

As consumers we can help by leaving our tyres with garages for responsible disposal. This will mean there is a reliable source of used tyres to allow retreading and recycling businesses to flourish. The garage may put a small levy on the price of a replacement tyre to go towards its disposal.

We can also help by choosing to buy retreaded tyres. In the past retreaded tyres were not as good as they are today. However they are now tested to the same standards as new tyres and are therefore just as reliable. They are already used widely on lorries and lorries.

The aim of the EHS is to protect and conserve the natural and built environment and to promote its appreciation for the benefit of present and future generations.

Environmental Protection seeks to safeguard the quality of air, water and land. This involves the enforcement of legislation and a range of supporting activities to monitor and report on discharges and emissions, to establish the impacts of pollution, to set standards, and issue consents, licenses and authorisations.



"USED TYRES - WHAT'S ALL THE FUSS ABOUT?"



For further information please contact:

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www.ehsni.gov.uk

"Used Tyres? What's all the fuss about?"

New legislation being introduced (EU Landfill Directive) will stop whole tyres being landfilled from 2003, and shredded tyres from 2006. At the same time increasing vehicle ownership means the number of used tyres is rising and expected to continue to do so.

IN NORTHERN IRELAND 16,100 TONNES OF USED TYRES ARE DISPOSED OF EVERY YEAR!
THAT'S ENOUGH TO STRETCH IN A LINE FROM BELFAST TO LONDON AND BACK AGAIN!

"So, what's the problem?"

Rubber is a valuable material and there are many innovative ways to potentially reuse and recycle tyres. A study by Environment and Heritage Service NI has found that at least 25% of used tyres in Northern Ireland are not being disposed of properly.

* Tyres burnt on fires

Tyres are highly flammable. Uncontrolled burning of tyres produces dense smoke and toxic fumes polluting air, water, soil and vegetation. Many of the toxic fumes released have the capacity to cause a genetic mutation that can lead to cancer or genetic diseases in future generations. It is thought that uncontrolled burning of tyres is 6 times more likely to cause genetic mutation than the burning of plastic. Water used to control the fire causes these pollutants to be washed into the ground. In NI the Fire Authority extinguishes around 2500 fires every year. Most of these involve the illegal burning of tyres.

* Tyres dumped in the countryside

Used tyres get illegally dumped in the countryside including fields and quarries. Because of the synthetic and chemical materials in tyres it is virtually impossible for them to be broken down naturally to their original, raw, external state. Not only are tyres an eyesore blighting our enjoyment of the countryside, but they are also a major source of pollution.

● Regulation of Tyre Use:

The Environment and Heritage Service is investigating options to regulate the use of tyres. This could include legislation to ban the use of whole tyres for fuel, or to prohibit the use of whole tyres in aggregate products such as asphalt or concrete.

● Sea defences

Used tyres are used for sea defence purposes. It is thought that the use of tyres as a defence against waves and tides is not effective. Instead, concrete blocks, rock armour, dredging and beach nourishment are better methods of protecting coastal areas against wave and tidal action.

● Used as fuel

Used tyres can be used as an alternative fuel. This can be done in liquid fuel, solid fuel, gas or incineration. In the context here the best option of the four is to use shredded tyres as an alternative fuel to coal or oil. This would reduce the amount of oil imported into Northern Ireland and the amount of greenhouse gases released into the atmosphere. It would also reduce the amount of waste sent to landfill and cut down on the amount of energy required to produce electricity.



OM Tyre Recycling

Case Study

OM Recycling

The site at Chapel Hill Road, Mayobridge was previously operated as a storage area for plant and equipment associated with the quarry adjacent to the site.

The quarry was closed and developed into the Aughnagun Landfill Site which opened in 1996. The landfill currently disposes 42,000 tonnes of mixed waste derived from the surrounding areas per annum.

Planning permission for the shredding of tyres on the OMR site was granted in February 2004. The supporting statement indicated plans to utilise the shredded tyres as daily cover in the landfill as a means of disposing of used tyres.

The EU Landfill Directive introduced a ban on whole tyres being landfilled in July 2003. The ban on shredded tyres came into force in 2006.

The previous occupants opted to sell the site rather than investigate alternative markets.



OM Recycling

The City Waste Group purchased the site at Chapel Road in 2006.

The site was selected for the following reasons:

- Planning Permission for Recycling of Tyres
- Waste Management infrastructure in the area
- Environmental Impact minor versus existing landfill
- Geographical location
- History of Waste & Heavy Vehicle Traffic on Chapel Hill road
- Potential for development of Resource Recovery Facility

A license for the reception and processing of waste tyres was granted by the Northern Ireland Environment Agency in February 2008 (LN/08/08)

OM Tyre Recycling began operations in April 2008.

OM Recycling

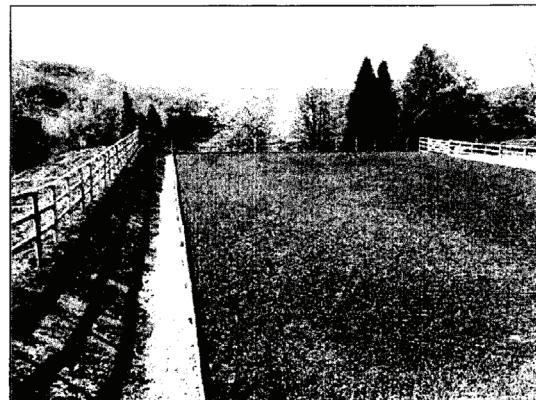
OM Tyre Recycling Business Model

Waste tyres are a significant problem throughout the world. Northern Ireland disposes of approx 1.5million used tyres per annum. As a result of the banning of tyres from landfill, OM Tyres aimed to collect and receive used tyres and reprocess into useable products.

- OMR would charge a gate fee for tyres received
- The tyres would be inspected and designated into segregated bays
- Part Worn tyres would be exported
- Scrap tyres would be shredded to produce a 20mm Softread product
- The shredding process produces a scrap steel for resale
- 100% of tyre entering site would be reused or recycled
- OM Recycling invested £500,000 on equipment and infrastructure

SOFTREAD

OM Tyre Recycling produce a high quality wire free > 20mm rubber chip for use in Equestrian Arenas, gallops and play parks.



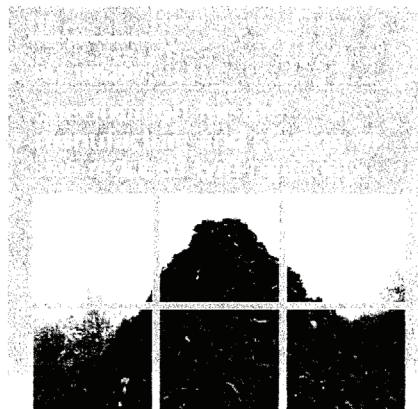
OM Recycling

Within a few months of operating OM Tyre Recycling, it became evident that there were problems with the business model. The result of the difficulties faced resulted in a change of direction in terms of onsite operations and products manufactured.

- GATE FEES were too low across NI due to illegal collections
- Customers weren't prepared to pay extra for compliance
- The global recession effected sale of equestrian surface product Softread
- The scrap wire had a cost for disposal and not a revenue
- Alternative local markets did not exist for current products manufactured

cow m

Quality Protocols



PUBLISHED AVAILABLE SPECIFICATION

PAS 108:2007

Specification for the production of tyre bales for use in construction



OM Recycling

OMR Successfully built up a customer base in NI and also began servicing ROI customers. A decision was made to manufacture tyre bales to a **PAS 108** specification.

WRAP commissioned the British Standards Institution (BSI) to prepare this Publicly Available Specification, **PAS 108**, in collaboration with the tyres reprocessing industry. It provides a specification for producing compact tyre bales of a consistent and verifiable quality and dimension. The compression of these tyres into bales provides a means of reusing these tyres whilst at the same time, reducing the demand for primary aggregate materials in construction.

PAS 108 sets out to provide a specification that can be adopted by suppliers for producing tyre bales such that potential customers will be assured that they are procuring a construction material of consistent and verifiable quality.



OM Recycling

To meet the supply demands when competing with virgin aggregates it was essential for OMR to build a large stock of product. Proposals were prepared for the use of OMR Tyre Bales in the construction of the Ballygawley by-pass, shore defence in Lismore beach Co. Donegal and as a landfill drainage layer for a company in Coleraine. If NIEA had accepted Tyre Bales as a product, these projects would have utilised thousands of bales.

The **PAS 108** was accepted by the Environment Agency in England, Scotland & Wales. The NIEA did not accept the specification and regarded the Tyre Bale as a waste rather than a product.

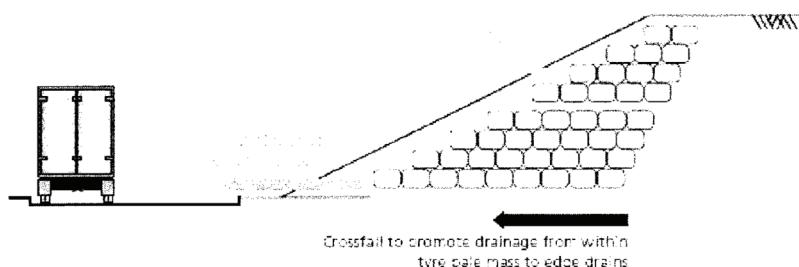


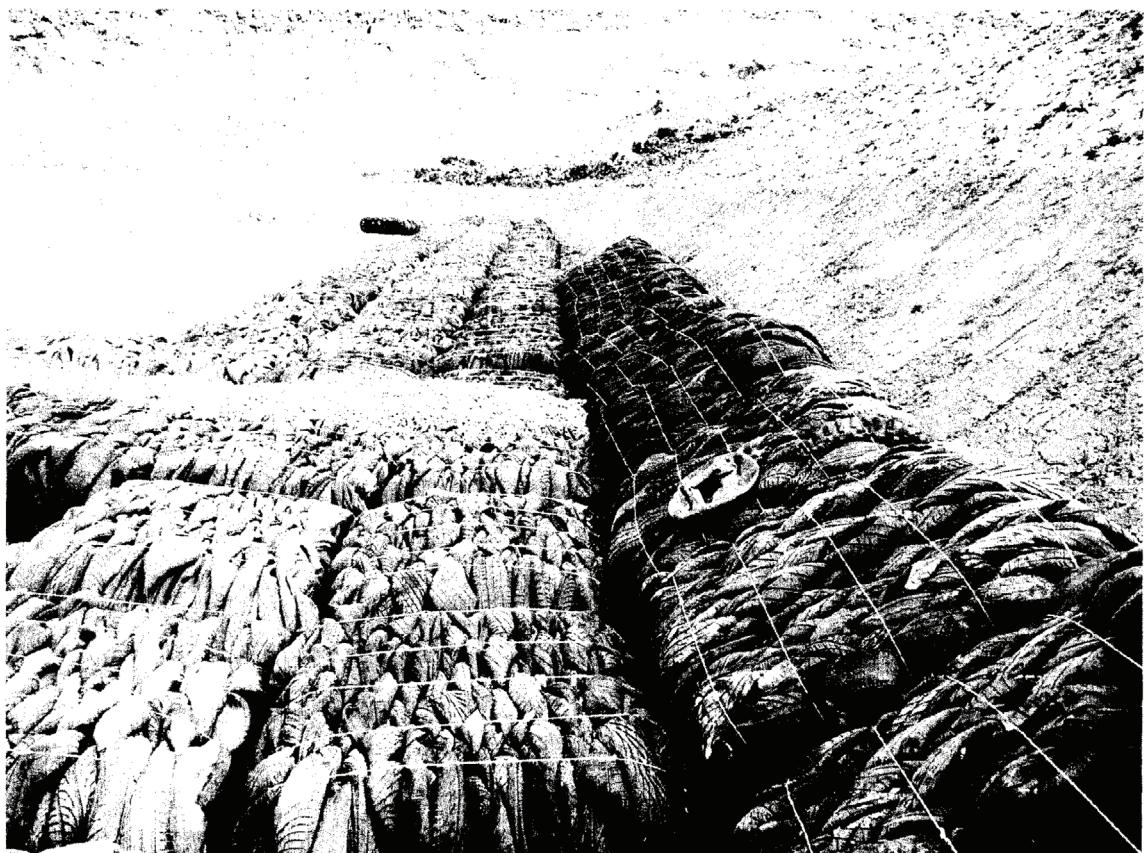
Meetings were held with WRAP and NIEA to discuss the acceptance of **PAS108**.

OM Recycling

A failure to reach a decision on the acceptance of **PAS 108** in NI meant that the use of Tyre Bales in projects such as flood defence, landfill engineering and general construction fill would require a PPC permit. The PPC permit is required for land filling of material and meant that the projects were not viable.

Tyre Bales are now accepted as a product through the End of Waste Criteria accepted by the NIEA in April 2011.



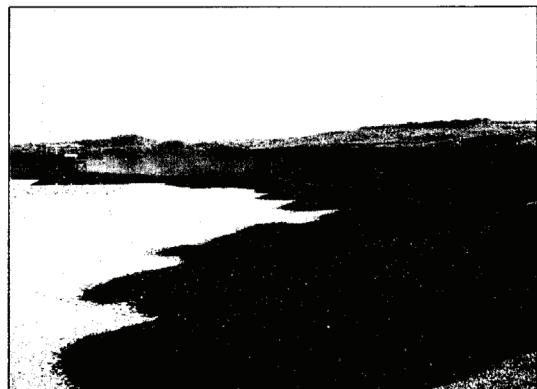


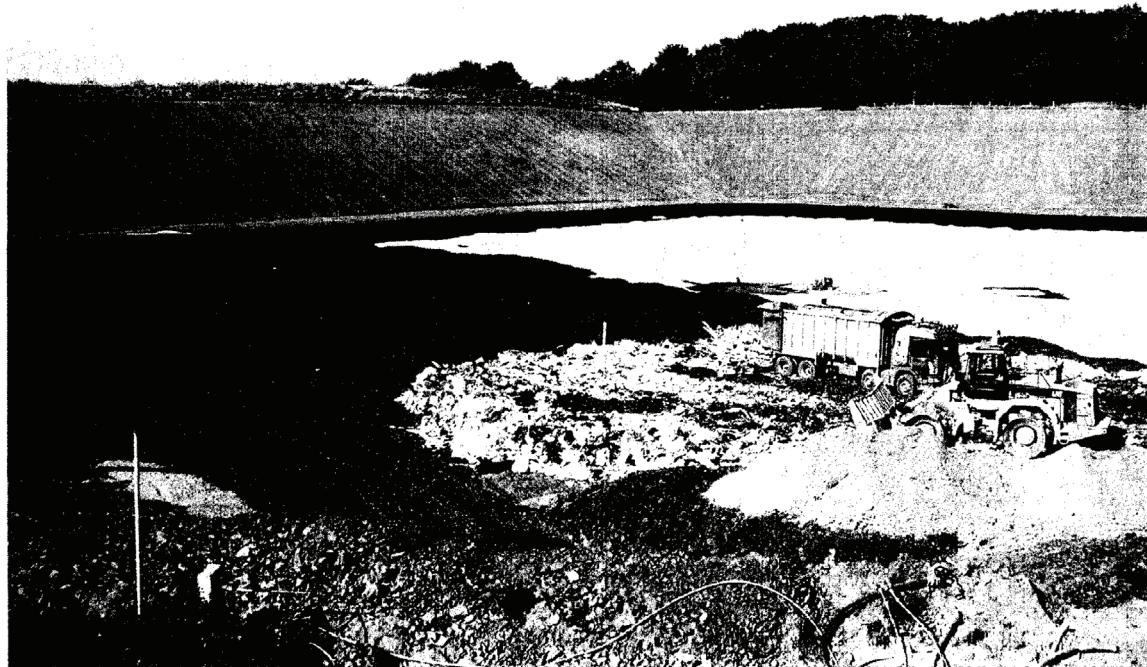
OM Recycling

In response to the barriers for Tyre Bale usage, OMR purchased a primary shredder to manufacture a Used Tyre Derived Aggregate Replacement (UTDAR). The UTDAR was manufactured to **PAS 107**, a PAS acceptable in Northern Ireland for shredded tyre manufacturing, as proven through the sale of our 20mm Softread rubber chips.

OMR proposed to use the UTDAR in landfill engineering, but were denied doing so by NIEA.

NIEA have now approved the use Of UTDAR as a drainage layer in landfills in Northern Ireland.



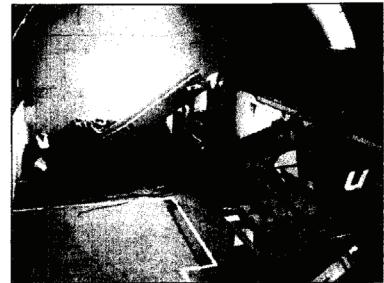


OM Recycling

As a result of the barriers facing the use of Tyre Bales, UTDAR and the acceptance of **PAS 107** and **PAS 108** OMR researched alternative markets outside of the UK & Ireland. Sustainable outlets were sourced in Japan and Korea for the use of Tyre Derived Fuel (TDF).

OMR invested in two new shredders and a mechanical sieve to manufacture the TDF to the agreed specification.

Investment £600,000



Resource Recovery

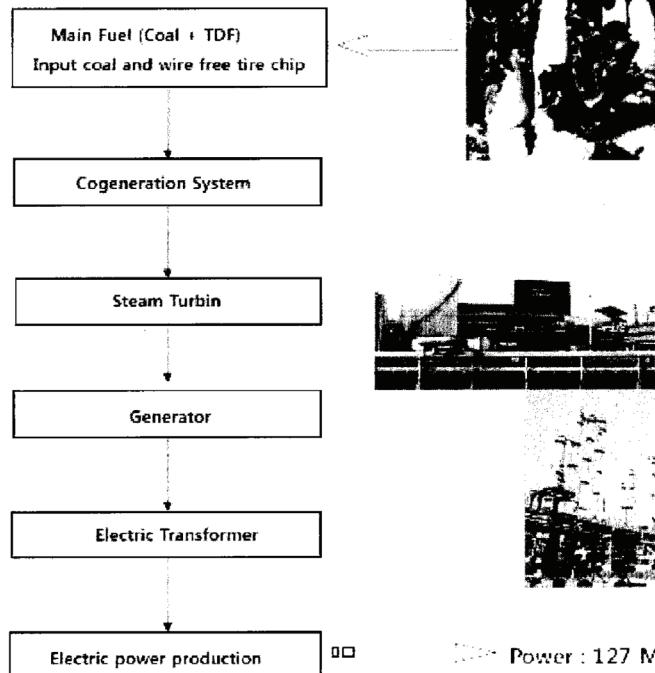
Tyre Derived Fuel (TDF)

TDF is a renewable, high quality, clean burning fuel that is produced from shredded car tyres. OMR also provide TDF in baled format.

The emphasis is placed on recovering value from the waste tyres. Part Worn and Re-treadable tyres are removed from incoming waste stream.



Energlo TDF (KUMHO)

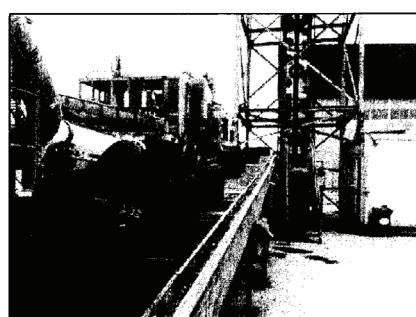


Energlo TDF



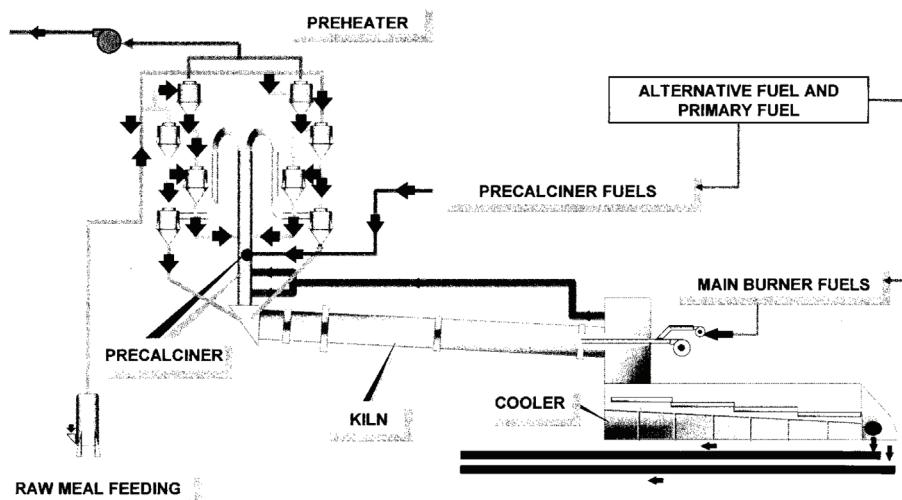
OMR manufacture tyre bales for export in 40' containers. Each load contains between 25t and 27t. The purpose of baling the tyres is for transport purposes.

The bales are opened at the cement facility and manually loaded onto a feed hopper. The hopper conveys the material in a uniform flow, and hooks mechanically lift each tyre individually to feeding these to the kiln from above.





Cement Manufacturing



TDF Sustainable Contracts

Following visits to Japan & Korea in January 2011, OMR have been able to establish 2 – 3 year contracts to supply various grades of Energlo TDF with three customers.

- Daicel Chemicals (Japan)
- Kumho Petrochemical (Korea)
- Ssangyong Cement Industries Ltd (Korea)

All of these outlets have been validated by the NIEA and OMR have been providing material to these customers for the past 4 months. The commencement of these contracts was hampered due to the Japan Earthquake in February 2011, and the trade imbalance effect on container availability in Ireland.

The Future of Tyre Recycling

- The waste tyre producer must be more accountable for waste disposal
- The ability to collect tyres must be better controlled (ROC)
- The ease of getting an Exemption must be looked at
- Sustainable End markets must be developed within Northern Ireland e.g. Bales
- There is a need to establish a public body that works with the private sector to develop domestic outlets within Northern Ireland
- Need for a broader interpretation of legislation
- Need for expediency on decision making process

Departmental reply re Artificial Tyre Reefs

DOE Private Office
Clarence Court
10-18 Adelaide Street
BELFAST
BT2 8GB

Mrs Alex McGarel
Clerk to the Environment Committee
Northern Ireland Assembly
Parliament Buildings
Ballymiscaw
Stormont
BELFAST
BT4 3XX

Telephone: 028 9054 0855
Facsimile: 028 9054 1169
Email: privateoffice.assemblyunit@oeni.gov.uk
Your reference:
Our reference: CQ /8/11

Date: 2 September 2011

Dear Alex

The Environment Committee requested a briefing paper on the possibility of using tyres to create artificial reefs, at its meeting on 26 May 2011. The Department has consulted further with the marine licensing authorities for England, Scotland, Wales and the Republic of Ireland.

Background

1. OSPAR is the international agreement for the protection of the marine environment of the North East Atlantic. The UK and the Republic of Ireland are both contracting parties and as such, are bound by the Agreement. With specific exceptions, the agreement bans the disposal of waste to sea.
2. As a signatory to OSPAR, the UK and ROI have agreed to support the UNEP/IMO London Convention and Protocol "Guidelines for the Placement of Artificial Reefs". Whilst acknowledging that there are many circumstances when the placement of artificial reefs are fully justified, the Guidelines are specifically to prevent reef creation being used as a thinly disguised mechanism for waste disposal. The marine licensing authorities for England, Scotland, Wales and the Republic of Ireland have all confirmed that they support OSPAR guidelines when considering waste disposal to sea.
3. The use of car tyres to create an artificial reef can still be viewed from two positions:
 - The disposal of waste car tyres;
 - Creating an artificial reef to satisfy an established need.

Current Position

4. If a need for an artificial reef was established, then a marine construction licence application would have to be considered on its own merits. When determining such an application, NIEA would be obliged to have regard to the UK supported Guidelines. In particular, there would have to be full justification of any decision to allow the use of materials other than those permitted under the OSPAR agreement.
5. The Environment Committee has suggested that waste tyres be used to create an artificial reef. As tyres are not covered by the OSPAR exemptions list, NIEA could not license this activity. This is consistent with the approach of the marine licensing authorities for England, Scotland, Wales and the Republic of Ireland. Any significant shift from this position would be

a major policy change which would have to be considered in a UK, European Union and North East Atlantic context.

I trust this information is of assistance, should you require anything further please contact me directly.

Yours sincerely,

Úna Downey
DALO

[by e-mail]

DEPOTEC Project

Depolymerisation Technology for Rubber with Energy Optimisation to produce Carbon Products

Project background

Europe produces some 3.2 million tonnes/yr of waste tyres. The properties that make rubber tyres desirable as a consumer product, such as durability, heat resistance and traction, also make their disposal and reprocessing difficult. They are almost immune to biological degradation. When tyres are not properly managed and disposed of, they represent certain risks to public health and to the environment. Although the Landfill and End of Life Directives are having a positive impact on the management of end-of-life tyres (ELT), over-reliance on rubber-derived products, particularly tyres, still continues.

Project objectives

The DEPOTEC project proposes a depolymerisation process that will add value to the waste tyres by producing products that can be used as substitute carbon filler materials in the rubber manufacturing process. This will ultimately lead to a reduction in stockpiling of tyres as they will now become valuable raw materials for the production of these products. It will also offer an alternative to burning ELT to produce tyre-derived fuel.

The project aims to design, plan and construct a demonstration 'ZeroWaste' plant for depolymerisation of end-of-life tyres that is able to recycle a significant quantity of waste tyres per year and be financially viable on the basis of its byproducts. This plant will be self sustained, and new products will be created from waste with minimal energy consumption. The project aims to demonstrate the viability of future mainstreaming of the process by processing a significant volume of end-of-life tyres into a microporous carbon material with absorbent properties over the duration of the project. The most effective testing procedures for gauging the technical quality of the products of this process will be assessed and the project will also contribute to the development of a comprehensive series of environmental standards that will facilitate the accreditation of the products of recycling of ELT (e.g. through the European Eco-Label). The end result will be the development of a technology that can be used throughout Europe to enable value-added products to be produced from waste.



Beneficiary:

Type of beneficiary
Small and medium-sized enterprise

Name of beneficiary
Erneside Engineering Ltd

Postal address
Lissarda Industrial Estate
IRL - Lissarda, Cork
IRELAND
Phone +353 21 733 6034
Fax +353 21 733 6145
Email Michael.murnane@turnkeydev.com

Name of contact person
Michael MURNANE

Duration of project:

36 months (05/09/2011 - 05/09/2014)

Total budget in euro:

3,986,622.00

EC contribution in euro with %:
1,554,729.00 (39.00 %)

Generic theme:

End-of-Life Vehicles (ELVs) and tyres

Expected results:

- A comparative study identifying best practice for viable and sustainable depolymerisation processes for ELT;
- The design and construction of a prototype facility for the depolymerisation of ELT, capable of processing 1 000 tonnes/yr;
- The production of 330 tonnes of carbon filler/1 000 tonnes of tyres using ELT as a feedstock;
- The development of activated carbons of highly microporous form with both high internal surface area and porosity;
- The diversion of 1 000 tonnes/yr of used tyres from landfill or incineration, saving significant CO₂ emissions and around 320 kWh of energy per tonne in relation to conventional forms of recycling of waste tyres; and
- The production and upgrading of some 330 tonnes of a carbon product through this process, and demonstration of its properties as equivalent to commercially available materials.

Department of the Environment Briefing Paper

Current Management of Waste Tyres in Northern Ireland: Environment Committee Paper

Purpose/Summary

1. The Purpose of this paper is to inform the Environment Committee regarding the current regulation of waste tyres and to highlight the Department's proposals to ensure greater protection of human health and the environment.

Action

2. The Committee is requested to agree two recommendations:
 - Await the outcome of a Waste Data Survey that will provide up to date data and a detailed breakdown of the waste tyre sector.
 - Allow the Department time to develop and implement the Action Plan measures summarised in this Paper and to receive a detailed account of its progress for consideration.

Background

3. A waste tyre survey commissioned by the Northern Ireland Environment Agency (NIEA) estimated that there were about 16,100 tonnes of waste tyres generated in Northern Ireland in 2000 or the equivalent of 1.74 million tyres. The main destinations identified were 32% sent for retreading and 16% for agricultural purposes. However some 30% of waste tyres were being disposed of to unknown destinations.
4. The Northern Ireland Waste Statistics Regulations requires the Department to provide a waste statistics report to the European Commission every 2 years. In 2008 NIEA recorded that 30,172 tonnes of rubber wastes (mainly end-of-life tyres) were generated and 5,224 tonnes were recovered.
5. The Department is commissioning a new waste tyres survey to obtain current data on the quantity of waste tyres generated annually in Northern Ireland and the percentage of tyres being reused, recycled, recovered and disposed of by other means. This survey is expected to take 3 months to complete, when commissioned, and the data collated will be helpful for local, national and for EU reporting purposes.
6. There has been a range of National and European waste legislation introduced in Northern Ireland in the last 10 years which has helped to regulate waste tyres including:
 - The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations (Northern Ireland) 1999
 - The Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002
 - The Waste Management Licensing Regulations (Northern Ireland) 2003 (as amended)
 - The Landfill Regulations (Northern Ireland) 2003
 - The End of Life Vehicles Regulations 2003
 - European Regulation 1013/06/EC on the shipment of waste.

More information on each of these is provided in the Annex to this Paper.

7. NIEA has found Duty of Care to be an ineffective mechanism for tracking the disposal of waste tyres. There are millions of waste transfer notes in existence at any one time and NIEA does not have the resources required to check every note and it would also result in a significant burden on legitimate industry. Those acting illegally will not bother to complete transfer notes.
8. Looking forward, NIEA is involved in an EU LIFE+ funded project with the Environment Agency and other EU partners entitled e:Doc. This project aims to develop an electronic data of case type system which potentially could make tracking of waste tyres significantly easier.
9. Recognising that the issue of waste tyres is of significant public concern, given the potential environmental and health risks, the Department is developing a Tyres Action Plan, overseen by a Steering Group made up of policy, and NIEA staff, as well as involvement of colleagues from the Republic of Ireland (DoECLG and EPA).
10. The draft Action Plan is detailed under five broad themes – Understanding the Scale of the Problem, Regulation and Enforcement, Exploring Alternative uses, Policy Options and Co-ordination and Communication. Examples of some of the proposed actions are set out in the following paragraphs.
11. The Environment Committee researchers have produced a paper which looks at regulatory systems in other countries. The Department will review and compare current legislative measures with statutory provisions in other Member States to see if any changes would be advantageous and effective in Northern Ireland.
12. The Agency intends to carry out an awareness raising exercise for retailers and distributors underpinned by a key stakeholder seminar to highlight and emphasise their responsibilities under Duty of Care and other relevant legislation when they are handing over their waste tyres to collectors.
13. NIEA has been reviewing the structure of its waste management licensing site inspections and will shortly introduce a detailed audit that will be carried out periodically for all licensed sites. These audits should provide the Agency with more data and will assist operators to improve the standard of site management. The audits will also be beneficial in regulating licensed sites, including waste tyre facilities.
14. There are a number of treatment options for waste tyres including: re-use, retreading, recovery e.g. silage clamps, manufacture of sports and safety surfacings, engineering applications, and thermal recovery.
15. Whilst the disposal of tyres via landfill is banned, their use as a leachate drainage layer in permitted landfills is an acceptable use for this material in Northern Ireland. In circumstances where the landfill operators wish to use waste tyres for this purpose they will be required to demonstrate compliance with landfill engineering and associated quality standards on a site specific basis. There will inevitably be a downturn in the need for landfills with the reduction of waste to landfill, increasing landfill tax and requirements to meet recycling targets. Landfills will still be required, albeit in a reduced capacity, and there may be the possibility of this use of waste tyres for several years, but not in the longer term.
16. There are few cost effective treatment options available in the UK for recycling and recovery of waste tyres. The current tyre issues have to some extent arisen because the waste tyre industry is extremely volatile and susceptible to market change. Operators have been unable to secure local, long term, sustainable tyre solutions. The main recovery route at present is via the exportation of tyres for incineration. Such contracts necessitate substantial stockpiling of tyres to warrant the volumes required for shipments. The Department proposes to explore alternative uses for waste tyres with Invest NI and WRAP.
17. The Waste and Resources Action programme (WRAP) has produced two specifications for waste tyres. These are the British Standards Institution's Publicly Available Specifications,

PAS 107, for crumbed tyres and PAS 108 for baled tyres. These two PASs have not been approved for use in Northern Ireland and in any case they would not affect regulatory requirements or confer end of waste status.

18. In the last 2 years WRAP and the Environment Agency commenced a review of both of these PAS specifications with a view to producing Quality Protocols (QPs) for baled and crumbed tyres. However the results of a chemical risk assessment for baled tyres concluded that there are currently insufficient data to establish with a high degree of confidence that metal and organic contaminants released from tyre bales do not pose unacceptable long term risks to the aquatic environment or to human health. The Environment Agency has therefore decided in the interim to defer publication of the Quality Protocol for baled tyres and has issued instead a regulatory position statement on their use in engineering projects. The Agency's objective is to seek agreement to adopt and publish the tyre crumb QP following its review. It will be important that these QPs and PASs are only progressed when NIEA is confident that the waste tyre industry is largely compliant in meeting its legal responsibilities.
19. NIEA will normally seek to prosecute where the activity is likely to cause pollution or harm to human health, is being carried out without the appropriate licence or exemption, or there is a breach of waste management licence/exemption conditions.
20. It should be noted that offences under Article 4 of the Waste and Contaminated Land (NI) Order 1997 as amended (such as treating or keeping waste without a licence or in a manner likely to cause environmental pollution) are classed as serious crime under the Serious Crime Act 2007. Much waste (including waste tyres) is handled illegally because such criminality is capable of generating significant financial benefit for those involved. This potential for financial gain has attracted organised criminals into the waste industry (ref NIAO report on Organised Crime, April 2010). Vigilance, inspection and enforcement techniques (which are already contained in environmental legislation and the Proceeds of Crime Act) will be used to tackle this issue.
21. The Department is aware of instances where large quantities of waste tyres are being flytipped. NIEA's Environmental Crime Unit (ECU) has been carrying out investigations into this issue and at present one major case is with PPS and will be prosecuted in the Crown Court. Cases relating to the major fires in Londonderry are also being completed and will shortly be submitted to the PPS. It is hoped that the results of these cases will also present a deterrent to potential offending.
22. The Waste and Contaminated Land (Amendment) Act NI 2011 (the Waste Act) legislates for partnership working between the Department and local government to tackle flytipping. However, before commencing the relevant provisions, the Department has been working with local government to develop a Flytipping Protocol. While this has now been completed at a high level, more detailed operational arrangements still have to be established. This work is to be taken forward by NIEA in the coming months and hopefully the relevant provisions of the Waste Act can then be commenced in early 2012.

Summary

The Department presents this short synopsis to the Committee setting out the current situation and problems in Northern Ireland surrounding the collection and disposal of waste tyres.

The Department is actively developing a Tyres Action Plan, overseen by a group of policy and operation officials, and with the involvement of RoI counterparts.

Within the draft Action Plan there are a number of proposals that the Department intends to take forward:

- Waste Data Survey
- Review and compare legislation in Northern Ireland with other countries and consider if any changes would be necessary or beneficial
- Seminar/awareness campaign
- Periodic in-depth audits of waste licensed sites
- Progress with WRAP the introduction of PAS 107 and PAS 108 and the Quality Protocol for crumbed tyres
- Explore new markets/technologies for waste tyres with Invest NI and WRAP
- Increase enforcement and case files to the PPS
- Implementation of a Flytipping Protocol

This Action Plan and the package of proposals within it should considerably improve our understanding and control of this difficult waste stream. More importantly, the outcomes should help reassure the Committee, local government, business and the general public of our determination to protect the environment and safeguard human health.

Annex 1

The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations (Northern Ireland) 1999 provide that only registered carriers can be used for the transportation of waste tyres.

The Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002 require that waste tyres (which are “controlled waste²) are handled with due regard and that all reasonable steps are taken to keep the waste safe. The regulations require that waste producers ensure that waste transfers are documented and that this documentation must be held for at least two years.

Under The Waste and Contaminated Land (Northern Ireland) Order 1997 ('1997 Order'), a waste management licence is normally required to authorise the deposit, treating, or disposal of controlled waste on land.

The Waste Management Licensing Regulations (Northern Ireland) 2003 (as amended) stipulate the criteria and thresholds for the storage, collection and recycling of waste tyres. This may involve whole tyres, bales, shred or crumbed tyres.

The Landfill Regulations (Northern Ireland) 2003 (as amended) prohibited the disposal of waste tyres, both whole and shredded from landfill from 16 July 2006. Whole and shredded waste tyres may however still be used for landfill engineering purposes, e.g. leachate collection systems.

The End of Life Vehicles Regulations 2003 require a waste operator to hold an Authorised Treatment Facility (ATF) licence to be able to depollute end of life vehicles. The ATF licence requires the operator to remove waste tyres, store them safely and comply with Duty of Care and record keeping.

European Regulation 1013/06/EC on the shipment of waste controls the movement of waste shredded tyres into and out of the UK. NIEA is the Competent Authority for the transfrontier movements of waste tyres.

ANNEX 2

PEN PICTURES DOE OFFICIALS IN ATTENDANCE

PAMELA PATTERSON (Land & Resource Management – Waste Management Licensing)

Pamela Patterson (Principal Scientific Officer) heads the Northern Ireland Environment Agency – Land and Resource Management , Waste Management Licensing Unit.

DAVE FOSTER (Director of Environmental Protection)

Dave is Director of Environmental Protection. He is a Biologist by training, having studied at Birmingham and Leicester Universities. He worked for the National Rivers Authority and Environment Agency in England for 11 years in various operational and policy roles before joining the then Environment and Heritage Service as Head of Water Management Unit in 2002.

WESLEY SHANNON (Director of Environmental Policy Division)

Assembly Written Questions re Management of Used Tyes

AIMS Portal

Page 1 of 1



AQO 102/11-15

Ms Caitríona Ruane
Sinn Féin
South Down

Tabled Date: 02/06/2011
Answered On Date: 17/06/2011

To ask the Minister of the Environment what action his Department is taking to address the health and safety issues at the premises at Chapel Road, Mayobridge, which holds half a million tyres.

The operator at Chapel Road, Mayobridge has a waste management licence which permits him to accept up to 7,000 tonnes of waste tyres at the site per year.

The licence includes a number of conditions to manage and control the safe storage, recycling and disposal of waste tyres. NIEA staff also regularly assess fire break separation, security and access and the operator's fire/emergency action plan. The Agency works closely with the Northern Ireland Fire and Rescue Service and local Environmental Health Department.

NIEA has suspended the site licence on two recent occasions. At present a partial Suspension Notice applies to the site which permits the company to maintain a viable business and at the same time reduce the quantity of stockpiled tyres on the licensed site and an unauthorised adjoining area.

NIEA has entered into an agreement with the company to implement a remediation plan for the site. This agreement includes measures in relation to health and safety and importantly includes a plan to reduce the total number of tyres held on site. A fire safety plan has also been commissioned for the site as well as additional security. The Health and Safety Executive has been informed and have visited the site under their remit.

Over the past 8 months the company has considerably reduced the number of tyres on the site and currently there are approximately 2,200 tonnes or about 264,000 tyres. The agreement in place requires the company to reduce the tonnage to about 700 tonnes by August 2011. NIEA has regular review meetings with the company to assess progress. Should they fail to meet this target within the specified timescale, NIEA will determine if further regulatory action is required.

The Agency believes that unauthorised storage of tyres has taken place and in line with our Enforcement and Prosecution Policy has sent a file on the case to the Public Prosecution Service. The PPS has still to make a decision on whether to proceed with prosecution. I will advise members of developments in this matter.

The Department has also taken enforcement action under planning legislation seeking the cessation of the importation of tyres onto the unauthorised part of the site and the removal of all tyres externally stored at the site.

The company has submitted a planning application including an Environmental Impact Statement to regularise the situation and seeks planning approval to develop a tyre recycling facility on the entire site. The Department is giving the application careful consideration.



AQO 300/11-15

Mr Francie Molloy
Sinn Féin
Mid Ulster

Tabled Date: 01/09/2011
Answered On Date: 19/09/2011

To ask the Minister of the Environment what action he is taking to ensure the traceability of used tyres.

The Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002 requires that waste tyres which are controlled waste are handled with due regard and that all reasonable steps are taken to keep the waste safe. The regulations require that a written description be retained, this is in the form of a waste transfer note. Breach of this Duty of Care is an offence, which on summary conviction is liable to a fine not exceeding the statutory maximum or, an unlimited fine if convicted on indictment. Duty of Care provides an audit trail from the waste producer via carriers to suitably authorized facilities which NIEA can audit on the basis of routine inspection, intelligence received or suspected non compliance. There can be several transfer notes relating to any one waste movement as waste tyres pass through various carriers and waste transfer stations on their way to authorized recovery or export.



AQO 302/11-15

Mr Willie Clarke
Sinn Féin
South Down

Tabled Date: 01/09/2011
Answered On Date: 19/09/2011

To ask the Minister of the Environment what percentage of tyres are currently recovered for recycling.

The Northern Ireland Waste Statistics Regulations requires the Department to provide a waste statistics report every 2 years. In 2008 NIEA recorded that 30,172 tonnes of rubber wastes (mainly end-of-life tyres) were generated and 5,224 tonnes were recovered. The percentage of rubber wastes recovered in 2008 in NI was estimated to be 17.3%.
The last waste tyre survey undertaken for Northern Ireland estimated that 16.10kt of waste tyres were generated in 2000, 30% were sent for retreading and 16% were reused by the farming community.
The Department intends to commission a new waste tyres survey to obtain current data on the quantity of waste tyres generated and the percentage of tyres being reused, recycled, recovered and disposed of by other means. This survey is expected to take 3 months to complete and the data collated will be used locally, nationally and to meet EU reporting requirements.



AQW 110/11-15

Ms Caitríona Ruane
Sinn Féin
South Down

Tabled Date: 20/05/2011
Answered On Date: 06/06/2011

To ask the Minister of the Environment what action his Department is taking to address the health and safety issues at the premises at Chapel Road, Mayobridge, which holds half a million tyres.

The operator at Chapel Road, Mayobridge has a waste management licence which permits him to accept up to 7,000 tonnes of waste tyres at the site per year.

The licence includes a number of conditions to manage and control the safe storage, recycling and disposal of waste tyres. NIEA staff also regularly assess fire break separation, security and access and the operator's fire/emergency action plan. The Agency works closely with the Northern Ireland Fire and Rescue Service and local Environmental Health Department.

NIEA has suspended the site licence on two recent occasions and retains a partial Suspension Notice on the site. The operator can continue to process tyres and is permitted to import 1 tyre for every 2 tyres leaving the site up to a maximum amount.

NIEA has entered into an agreement with the company to implement a remediation plan for the site. This agreement includes measures in relation to health and safety and importantly includes a plan to reduce the total number of tyres held on site. A fire safety plan has also been commissioned as well as additional security. The Health and Safety Executive has been informed and has visited the site under their remit.

Over the past 8 months the company has considerably reduced the number of tyres on the site and currently there are approximately 2,682 tonnes or about 321,840 tyres. The company is required to submit weekly data returns to NIEA stating the number of tyres remaining on the site. The agreement in place requires the company to reduce the tonnage to about 700 tonnes by August 2011. Should the site operator fail to meet this target then NIEA will implement more stringent regulatory action.

Improvements have been made to the site since October 2010 however it is recognised that further improvements are required. NIEA will continue to monitor the site on a regular basis to ensure these are introduced in accordance with the agreement. NIEA believes that unauthorised storage of tyres has taken place and in line with our Enforcement and Prosecution Policy a case file has been sent to the Public Prosecution Service.

The Department has also taken enforcement action under planning legislation seeking the cessation of the importation of tyres onto the unauthorised part of the site and the removal of all tyres externally stored at the site.

The company has submitted a planning application including an Environmental Impact Statement to regularise the situation, seeking planning permission to develop a tyre recycling facility on the entire site. The Department is currently processing this application. I am considering this issue generally.



AQW 1670/11

Mr P J Bradley
Social Democratic and Labour Party
South Down

Tabled Date: 25/10/2010
Answered On Date: 01/11/2010

To ask the Minister of the Environment for his assessment of the capacity of the tyre recycling plant at Chapel Road, Mayobridge, Newry; and, if he is aware, where the source is of the worn tyres that are being delivered to the depot.

The operator has a waste management licence which permits him to accept up to 7,000 tonnes of waste tyres at the site per year. There have been breaches of the licence which NIEA required the operator to remedy and he has complied with these requests. I consider the waste management licence to be satisfactory, including the permitted capacity for waste tyres. The operator submitted an action plan during the summer and NIEA has been liaising with him regarding breakdowns of the equipment leading to stock piling of tyres. However the stockpiling is taking place outside the boundary of the licensed site. The operator is currently pursuing possible outlets for shredded tyres and has begun shipping material to Japan for fuel. He has complied with the paperwork required under the Transfrontier Shipment of waste and NIEA is content with this outlet. Agency staff have been on site to monitor this aspect and oversee the onward movement of the shredded tyres to Japan. The Agency has submitted a case to the Public Prosecution Service regarding the illegal storage of waste tyres and the PPS is currently assessing this file. Planning Service has taken court proceedings against the operator in relation to the Stop Notice. The operator was given a 2 year conditional discharge on 21 June 2010 and prohibited from importing waste for 2 years. Planning Service's investigations are continuing in relation to the Enforcement Notice which is still in force. NIEA staff have noted from their inspections of records, site diary and weighbridge dockets as well as from discussions with the company that waste tyres are being sourced locally and from the ROI. The Agency does not hold details of the respective tonnages.



AQW 7101/10

Mr P J Bradley
Social Democratic and Labour Party
South Down

Tabled Date: 25/05/2010
Answered On Date: 07/06/2010

To ask the Minister of the Environment, pursuant to AQW 1605/10 and AQW 5528/10, what progress has been made in ensuring that the operators of the waste tyre site at Chapel Hill, Mayobridge comply with their licence; and for an update on the current situation at the site.

The operator has a waste management licence which permits him to accept up to 7,000 tonnes of waste tyres at the site per year. Since the beginning of 2010 NIEA staff have carried out 7 site inspections and found a number of non-compliances. As a consequence an Article 12 Notice was issued to the operator on 29 March 2010 requiring the removal of waste tyres being stored outside the building on the licensed site. This breach was rectified and the Notice was lifted on 19 April 2010. Agency staff recorded breaches of the licence on a recent site inspection and issued an Article 16 Notice on 26 May 2010. This requires the operator to remove waste tyres being stored outside the building on the licensed site. The operator has also been asked to submit a plan by 9 June 2010, detailing measures with timelines to prevent future non-compliances. If the Agency is not satisfied with the steps proposed by the operator then it will consider revocation or suspension of all or part of the licence. The operator is currently pursuing possible outlets for shredded tyres and has been informing NIEA of his progress to date. The Agency would wish to ensure that there is a verifiable authorised outlet for processed tyre waste and prevent the addition of waste to the existing stockpile of baled and shredded tyres on adjacent land. The Agency believes that unauthorised storage of tyres has taken place and has recently sent a file on the case to the Public Prosecution Service. Planning Service issued an Enforcement Notice on 5 March 2010 seeking the cessation of the importation of tyres onto the unauthorised part of the site and the removal of all tyres externally stored at the site. This Notice took effect on 8 April 2010. At the same time Planning Service issued a Stop Notice against the importation of further tyres onto the site and this took effect on 8 March 2010.

Aughnagun Concerned Residents Association

**AUGHNAGUN CONCERNED
RESIDENTS ASSOCIATION**

Presentation to the Environment Committee

6th October 2011

Inquiry into Tyre Recycling

AUGHNAGUN CONCERNED RESIDENTS ASSOCIATION

Who We Are?

We are a group of residents that live in and around the Aughnagun townland near Mayobridge, Co Down. We have been formed against a backdrop of living beside a local council landfill and more recently a tyre recycling plant.

While we have a good relationship with the local council and meet through a liaison committee to discuss issues of concern, we have not been able to have the same relationship with the tyre recycling company OM Tyre Recycling Ltd as they are a private operator.

To understand some of the concerns one needs to firstly appreciate that Aughnagun is an area that is partly in the Mourne's Area of Outstanding Natural Beauty. It is a rural location; one that people would expect to live in at harmony with the natural environment.

However, since 2006 and the setup of the tyre recycling facility we have been unable to live in such tranquillity.

Inquiry into Tyre Recycling

1. Estimate the number of used tyres arising annually in Northern Ireland

To do this it would require a complete revamp of the existing licence procedure. We would have to control all producers and importers along with a potential licence of retailers and distributors. Our experience demonstrates that there are a lot of tyres coming into the local tyre plant, but there seems to be no market for the product that they may produce. This has led to a tyre mountain.

2. Critically examine the current audit trail for managing tyres from purchase through to disposal and establish key responsibilities at critical stages

We believe, having lived beside tyre mountain for 5 years that the audit trail is poor. It is evident to us that the disposal and the control of it are also limited by enforcement to keep within existing licence conditions.

3. Examine the legal framework for the collection, storage and disposal of used tyres and consider how this is monitored and enforced by the Northern Ireland Environment Agency

Having lived beside tyre mountain, we find the storage and disposal of used tyres to be nothing short of an environmental crime. NIEA have failed us in their management of tyres and the licence of tyre mountain. They have been slow to react to the unsightly spoil heap of bales of tyres that have been located outside the licence area. As there is no means of managing private collections properly we feel that tyre mountain has been able to grow as NIEA have been unable to trace movements of tyres, not only across NI but across the island.

AUGHNAGUN CONCERNED RESIDENTS ASSOCIATION

4. Establish the extent of historical stockpiles of used tyres in NI and consider how these could be incorporated into the established process for managing used tyres

There are many potential applications for used tyres. We need to investigate the uses of other leading European environmental countries such as Sweden and Germany. Various products can be produced from carpet underlay, shoe soles and as sports and playground surfaces. They can also be used in engineering works.

We witnessed thousands of tonnes of used tyres being stockpiles for years and this created the look of an industrial site in the middle of the countryside. Consideration of where tyre recyclers are located needs to be given.

5. Establish the potential for the development of an environmentally sound, economically viable, and self-sustaining end-use market in NI and make recommendations accordingly (this would include consideration of alternative uses for used tyres)

Used tyres will increase as rules and penalties for driving with worn tyres increase. Further, with a rise in vehicles there will obviously be more used tyres.

There is potential for an environmentally sound market, but more so there is an obvious need. We welcome the committee investigating the matter and hope that some recommendations can be made via the committee to the minister.

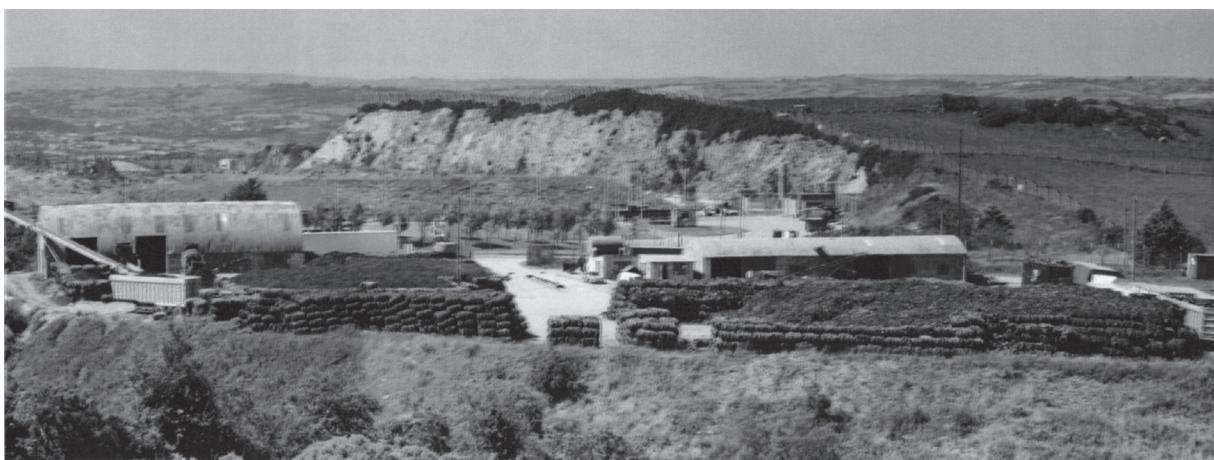
There needs to be a market and one barrier to the local market is NIEA reluctance to accept and approve used tyres as an engineering solution.

In conclusion we feel that NIEA need to be given more powers to tackle the problem of used tyres in NI. We also feel that an end market needs to be established.

We remain open to the committee for further comment.

Yours faithfully







Housing Executive Information re Illegal Dumping of Tyres



Director of Housing & Regeneration (A)
Gerry Flynn

2 Adelaide Street
Belfast BT2 8PB

Alex McGarel
Environment Committee Office
Room 245
Parliament Buildings
Ballymiscaw
BELFAST BT4 3XX

21 October 2011

Dear Alex

Tyre Disposal

I refer to your recent correspondence dated 26th September 2011 requesting information on the illegal dumping of tyres on Housing Executive land.

The only illegal dumping of tyres in the last year on Housing Executive land occurred in the Lower Falls and Ballymurphy areas of West Belfast. A total of 500 tyres were removed and disposed of a total cost of £2500 + VAT.

The issue of tyres has in the past been a problem when they were used on bonfires but has reduced significantly due to our community led approach to best manage bonfires.

Some of the general benefits for the Housing Executive and communities in providing support to improve bonfire management include:

- Environmental damage through the burning of inappropriate material is reduced.
- Reduced opportunities for fly tipping and the disposing of illegal waste.
- Reduced clean up costs.

The management of bonfires is the responsibility of a range of agencies and that is why NIHE works in partnership with local Councils, the PSNI, Fire Service and local communities. I hope this information is useful.

Yours sincerely


G Flynn
Director of Housing and Regeneration (A)



Telephone 028 9031 8741 Fax 028 9031 8738
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Department of Health, Social Services and Public Safety (DHSSPS) Information re Costs of Responding to Tyre Fires

FROM THE MINISTER FOR HEALTH,
SOCIAL SERVICES AND PUBLIC SAFETY
Edwin Poots MLA



Ms Anna Lo MLA
Chair, Committee for the Environment
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Our Ref: COR/1651/2011

25th October 2011

I am writing in response to the Environment Committee's letter of 5 October in relation to its inquiry into used tyre disposal.

The cost of responding to tyre fires has a significant impact on the Northern Ireland Fire and Rescue Service (NIFRS) budget. The NIFRS has advised that there are two distinct types of tyre fires: large resource intensive fires within industrial / commercial undertakings, and - the more common - setting alight of tyres which been dumped either as part of local bonfire activity or deliberate fires involving waste materials.

The costs of such incidents to NIFRS in each of the last five years, and this year to date, are outlined in the table below.

Financial Year	Incidents Attended	Average Cost per Incident (£)	Total Estimated Cost (£)
2006/07	174	2,225	387,150
2007/08	218	2,339	509,902
2008/09	210	2,570	539,700
2009/10	180	2,693	484,740
2010/11	215	2,521	542,015
2011/12	102	2,521	257,142

Notes: 1. 2011/12 figures are for the period 1 April – 2 October 2011 and are based on last year's costing.

Two of the 180 incidents in 2009/10 received significant media coverage because of their size and duration: the first occurred on 18 August 2009 in the Pennyburn Industrial Estate - at an estimated cost of £106k and the second on 4 October 2009 at Campsie - at an estimated cost of £229k.

The Committee's letter did not ask for views on how to address this problem; the NIFRS has, however, given some consideration to this and would suggest tighter regulation around the most appropriate storage of tyres for disposal coupled with measures taken to prevent arson and increased enforcement requiring tyre suppliers to ensure controlled disposal of tyres for recycling / destruction.

I hope this is helpful.



Edwin Poots MLA
Minister for Health Social Services and Public Safety

Working for a Healthier People

Note of Environment Committee visit to tyre disposal sites on Thursday 6th October

As part of the ongoing inquiry into the disposal of used tyres the Committee made visits to two tyre disposal facilities, R4 Recycling in Portadown and OM Recycling in Mayobridge. During the day the Committee also met with a concerned Residents' Association regarding the OM Recycling facility.

R4 Recycling

R4 Limited provides multiple services including the retreading of used truck tyres and the production of tyre bales to PAS 108 standard.

Lynn Kerr, Managing Director at R4, highlighted many key issues around the area tyre disposal:

- “There is simply no mechanism for checking up where used tyres go.”
- “It would be more economic for councils to have facilities for tyres at community sites.”
- “A mechanism for tracking tyres based on producer responsibility would not impact detrimentally on existing tyre waste management companies.”
- Many tyre collectors are operating with a Waste Carriers Licence which can be applied for online for a £129 fee. This is not sufficient for the disposal of waste tyres. These collectors are undercutting R4’s 70 pence charge for the removal of a waste tyre. These tyres may then be disposed of unscrupulously, including in some cases being abandoned in huge numbers in rented properties. It then becomes the responsibility of the property owner to dispose of the tyres.
- The tyre bales produced by R4 have been used in numerous projects including bolstering river bends, golf course construction, repairing damage caused by burrowing rabbits, a road project in Galway, landfill engineering and the construction of a 4x4 testing track.
- R4 does not feel adequately supported by either the NIEA or InvestNI.

Other issues highlighted during the committee's visit to R4 include:

- R4 would like to extend but have found difficulty obtaining planning permission and adequate electricity supply to run machinery, despite asking the electricity board several months ago. An extension could mean 7 or 8 new jobs.
- Car tyres, unlike truck tyres, are not traceable as they do not have a serial number.
- Local councils would benefit from purchasing retreaded tyres. High quality retreads can outlast cheaper, new tyres by around 3:1. If tyres were purchased based on mileage rather than initial cost price large savings could be made. Only the Craigavon Council purchases R4 retreads.
- Purchase of retreads is ~15% in NI, ~30% in England, ~30% in Europe and ~50% in the US.
- Each retreaded truck tyre saves 23kg of oil and 18kg of steel, greatly decreasing the environmental impact of tyre production.
- A problem faced by R4 is that their retreads have occasionally had their labels removed and been sold as new tyres. This, however, is impossible to prove.
- R4 keeps a detailed record of every retread they produce.

Meeting with Aughnagun Concerned Residents' Association

SDLP Councillor Connaire McGreevy brought along three representatives of the Aughnagun Residents' Association. This group was initially formed in response to a local council landfill but now focuses its attentions towards the OM Recycling facility. Some concerns raised by residents include:

- The unsightly nature of the facility, particularly the stockpiling of tyres beyond the legal allowance.
- Despite having a meeting with OM they found their concerns were not being taken seriously.
- They allege that the plant operates outside official hours and have previously had concerns about the volume of music being played in the facility.
- The proximity of the facility to neighbouring houses. According to residents the closest house is 145 metres from the plant.
- The congestion caused by trucks coming to and from the plant on a small country road.
- The danger of tyres falling off trucks and injuring children playing outside.
- Serious concerns were raised about the potential danger of a tyre fire. Residents pointed out that “when the fire brigade came to deal with a fire in a nearby [to the tyre recycling plant] property recently they found they didn’t have sufficient water pressure.”
- Residents also remarked that if they declared their proximity to the facility they would be denied house insurance.

OM Recycling

OM has a licence for the reception and processing of waste tyres granted by the NIEA in February of 2008. OM started operations in April 2008. OM shred tyres for use in horse ménages; however this market has decreased in recent years as a result of the economic climate. Tyres are also baled for export to South Korea and Japan for use as fuel. OM charges 45/50p per car tyre and around £4 per lorry tyre to tyre collectors for accepting tyres. OM does not accept from non-license holders.

Some frustrations expressed by Gerry Farmer, Managing Director and Gavin Doherty, member of staff include:

- The refusal of the NIEA to define tyre bales as either a product or a waste. There exists a discrepancy between Northern Ireland and England and Scotland in the interpretation of ‘end of waste.’ Tyre bales are commonly used for many functions in England and Scotland. There exists a lack of acceptance of protocol, with NI dealing with each case individually.
- OM feels that “nobody is promoting recycling.” The focus of NIEA appears to be on regulation rather than helping the private sector to find sustainable ways to recycle.
- NIEA has taken over 9 months to reply to a query regarding license suspension.
- The current planning application to upgrade the site was submitted 2.5 years ago after a PAD.
- Most of OM’s export is to Japan, OM failed to meet their target in reduction of tyre stockpiles by 20% partially as a result of the Japanese earthquake. Japanese ports were unable to accept shipments.
- OM also claims difficulty in finding containers in which to ship tyres abroad, despite having a £500,000 export bond.

- As part of the current planning application OM would like to landscape the site but has been unsuccessful, thus far, in gaining this permission.
- OM would happily move site but fears losing the existing license to recycle. Gerry Farmer noted that he has already invested one million pounds in the existing site.
- The price OM can charge for a waste tyre drops as a result of illegal operators undercutting their price.

Actions

- Ascertain if proximity to tyre storage affects ability to get insurance and if so, on what specific grounds.
- Establish if NIEA check water pressure before issuing a license.
- Look into the length of time taken to respond to queries posed to NIEA.
- Look into the length of time taken to respond to requests for increased electricity by the electricity board.

Ballymena Borough Council Letter re Tyre Inquiry Briefing



Our Ref: NMCC/AD

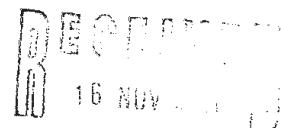
14 November, 2011

Ms Anna Lo
Chairperson of Committee for the Environment
Environment Office
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Dear Ms Lo

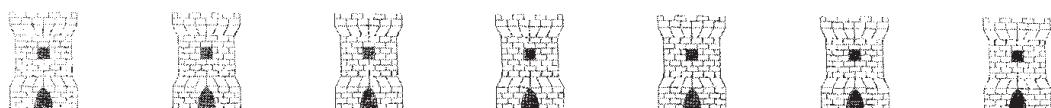
Re: Ballymena Borough Council's Presentation to the Committee for the Environment

On behalf of Ballymena Borough Council I would like to thank you for the opportunity afforded to us to address the Committee for the Environment in relation to the issue of used tyre disposal. It was a privilege for Members and staff to be asked to provide the details of our "Tyre Marketing Scheme" and I hope you found the presentation helpful.

I would like to take this opportunity to reiterate the recommendations which were placed before the Committee:-

- There must be a more strategic joined up practicable approach to ensuring enforcement.
- Council would strongly recommend a joined up approach between Councils and NIEA providing localised "duty of care" enforcement with the making of tyres in every Local Authority to minimise the opportunity for criminality in the illegal disposal of tyres.
- We would highlight the need for improved communication between Local Authorities and NIEA and would welcome the opportunity to be involved in the NIEA awareness raising event.
- Council would strongly recommend that the proposed Fly Tipping Protocol be amended to realistically reflect the role of Councils and Local Government.

May I express, once again, the willingness of Ballymena Borough Council to participate in a pilot programme with NIEA or indeed any other relevant partners. We are very keen to progress such a pilot project within our framework for Community Planning.



Department of Health, Social Services and Public Safety (DHSSPS) Information re Respiratory Problems

FROM THE MINISTER FOR HEALTH,
SOCIAL SERVICES AND PUBLIC SAFETY
Edwin Poots MLA



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Our Ref: COR/1786/2011

16 November 2011

Dear Anna

I am writing in response to the Environment Committee's letter of 18 October in relation to its inquiry into used tyre disposal.

Data available on the Hospital Inpatient System identifies all admissions to hospital with a respiratory diagnosis. The system does not however identify the reason for the respiratory condition.

Over the last 3 years the number of respiratory admissions is generally at their lowest in the month of July, the main period when bonfires are lit, and the main period when admissions to hospital increases is during November to January each year.

I hope this helps to inform your Inquiry.

I am sending a copy of this letter to the Chair of the Health, Social Services and Public Safety Committee for information.

Edwin Poots MLA
Minister for Health Social Services and Public Safety

Working for a Healthier People



Departmental Response re Tyre Recycling Charge



Department of the
Environment
www.doeni.gov.uk

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Clarence Court
10-18 Clarence Court
BELFAST
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Email: una.downey@doeni.gov.uk

Your reference:
Our reference: CQ/115/11

Date: 18 November 2011

Mrs Alex McGarel
Clerk to the Environment Committee
Northern Ireland Assembly
Parliament Buildings
Ballymiscaw
Stormont
Belfast BT4 3XX

Dear Alex

I refer to your request regarding comments from the Committee following their meeting on 29 September 2011 in relation to the Used Tyre Inquiry.

Members have asked the Department what is the current amount of money generated via the charge from retailers for tyre disposal.

The Department has no statutory remit or powers with respect to a tyre recycling charge and does not hold this information. We can only supply a range of amounts of money that may be generated based on the estimated annual used tyres arisings.

It is the Department's intention to undertake a study to obtain current data for the number of waste tyres generated and their movement from cradle to grave. However, using previous surveys and Assembly Research papers, the Department provisionally estimates that approximately 1.8 million tyres are currently generated annually in Northern Ireland.

Tyre retailers usually charge a customer a voluntary tyre disposal charge of £1 to £2 per car tyre. This would mean that potentially £1.8Million to £3.6Million could be generated by tyre retailers annually. Collectors can charge the retailer 65p to £1 for removal and disposal of a used car tyre.

I trust this is acceptable to you and should you require any additional information please contact me directly.

Yours sincerely

Úna Downey
DALO
[By Email]

Pyreco Information re Tyre Pyrolysis

From: Noel Harasyn [mailto:noel.harasyn@pyreco.com]
Sent: 18 November 2011 15:32
To: +Comm. Environment Public Email
Subject: FW: The Chairperson informed members that they had been provided with an Assembly Research paper on an artificial reef at Poole Bay.
Importance: High

Dear Sir

I have read with interest the submission by Mr Brendan Carragher (Newline Waste Solutions) at your meeting on 20 October 2011.

Tyre pyrolysis has finally come of age and PYReco is about to build the world's largest commercial tyre pyrolysis plant (60,000 tonnes annually) on Teesside.

We are encouraged by very recent changes in UK waste regulations. The main change of the legislation is the introduction of the new Waste Management Hierarchy meaning that it is now a legal requirement to employ the most environmentally responsible recycling or disposal route for any waste.

Waste producers must now observe a prescribed order in dealing with their wastes.

The order is:

1. PREVENTION – using best efforts to minimise the generation of waste.
2. PREPARING FOR RE-USE routing the waste for return to its original formulation. (Pyrolysis)
3. RECYCLING – routing the waste for conversion into another product or formulation.
4. RECOVERY – reclaiming some/all of the waste (e.g. for energy).
5. DISPOSAL – the last resort if no use can be made of the waste.

The new legislation firmly supports pyrolysis as it fits perfectly with item 2 of the 'order'.

Tyre crumb and shred will fall into item 3 of the order.

As ever, the devil is in the detail and If you think it may benefit your Committee Inquiry into Used Tyre Disposal, I would be pleased to attend your next meeting in order to provide up-to-date information on large scale tyre pyrolysis. We are already discussing supply of feedstock with one of you larger waste tyre recyclers in NI.

With kind regards,

Noel Harasyn

Managing Director

PYReco Limited
Wilton centre, Room H245
Wilton, Redcar, TS10 4RF

Update: September 20, 2006

FORT LAUDERDALE, Fla. - Waste tires that cover approximately 36 acres of the ocean floor off of Fort Lauderdale, Fla. Up to 2 million old tires lie the ocean floor from a well-intentioned yet misguided attempt in 1972 to create what was touted as the world's largest artificial tire reef has now become an ecological disaster. Starting in June, U.S. Army and Navy divers will begin removing the tires as part of their annual training mission at no cost to the state.

A mile offshore from high-rise condos and beachside bars, where glitz and glamour mix with spring break revelry, lies an underwater dump - up to 2 million old tires strewn across the ocean floor.

A well-intentioned attempt in 1972 to create what was touted as the world's largest artificial reef made of tires has become an ecological disaster.

The idea was simple: Create new marine habitat and alternate dive sites to relieve pressure on natural reefs, while disposing of tires that were clogging landfills.

Decades later, it's clear the plan failed horribly.

Little sea life has formed on the tires. Some of the bundles bound together with nylon and steel have broken loose and are scouring the ocean floor across a swath the size of 31 football fields.

Tires are washing up on beaches. Thousands have wedged up against the nearby natural reef some 70 feet below the sea surface, blocking coral growth and devastating marine life. Similar problems have been reported at tire reefs worldwide.

"They're a constantly killing coral destruction machine," said William Nuckols, the coordinator for Coastal America, a federal group involved in organizing a clean-up effort that includes Broward County biologists, state scientists and Army and Navy salvage divers.

Gov. Charlie Crist's proposed budget includes \$2 million to help to dispose of the tires. Broward County will manage the work, and military divers will use the effort as part of their annual training missions at no cost to Florida.

A month-long pilot project is set for June. The full-scale salvage operation is expected to run through 2010 at a cost to the state of about \$3.4 million.

"The size of the salvage job has just been way too massive and expensive for county and state government to handle alone," Mr Nuckols said.

Ray McAllister, a professor of ocean engineering at Florida Atlantic University, was instrumental in organizing the 1970s tire reef project with the approval of the U.S. Army Corps of Engineers.

Mr McAllister helped found Broward Artificial Reef Inc., which got tires from Goodyear and organized hundreds of volunteers with boats and barges. A Goodyear blimp even dropped a gold-painted tire into the ocean at the site to commemorate the start. It's unclear how much it cost to build the reef, but Mr McAllister said his group raised several thousand dollars. The county also chipped in, and Goodyear donated equipment to bind and compress the tires.

A 1972 Goodyear news release proclaimed the reef would "provide a haven for fish and other aquatic species," and noted the "excellent properties of scrap tires as reef material."

"The really good idea was to provide habitat for marine critters so we could double or triple marine life in the area," Mr McAllister said. "It just didn't work that way. I look back now and see it was a bad idea."

In decades past, tire reefs were created off coastal states and around the world from Australia to Africa.

"We've literally dumped millions of tires in our oceans," said Jack Sobel, a senior Ocean Conservancy scientist. "I believe that people who were behind the artificial tire reef promotions actually were well-intentioned and thought they were doing the right thing. In hindsight, we now realize that we made a mistake."

No one can say with certainty why the idea doesn't work, but one problem is that, unlike large ships that have been sunk for reefs, tires are too light. They can be swept away with tides and currents from powerful storms, and marine life doesn't have a chance to attach. Some scientists also believe the rubber leeches toxins.

Virginia tried it several decades ago but Hurricane Bonnie, which hit the coast as a Category 3 storm in 1998, ripped the tires loose, sending them on a slow march south. They eventually littered some North Carolina beaches.

New Jersey scientists thought they had a solution to the weight problem - in 1986, the state began a small reef project with about 1,000 tires split in half, bound together and weighted with concrete.

It didn't work. Pieces of rubber broke loose and floated free.

"We had to go up and down the coast of New Jersey and collect 50 to 100 of those pieces that were all along the beaches," said Hugh Carberry of New Jersey's Department of Environmental Protection.

The state then hatched a new plan to stack tires 10-high and fill the cylindrical centres with concrete. Each bundle weighed about a ton.

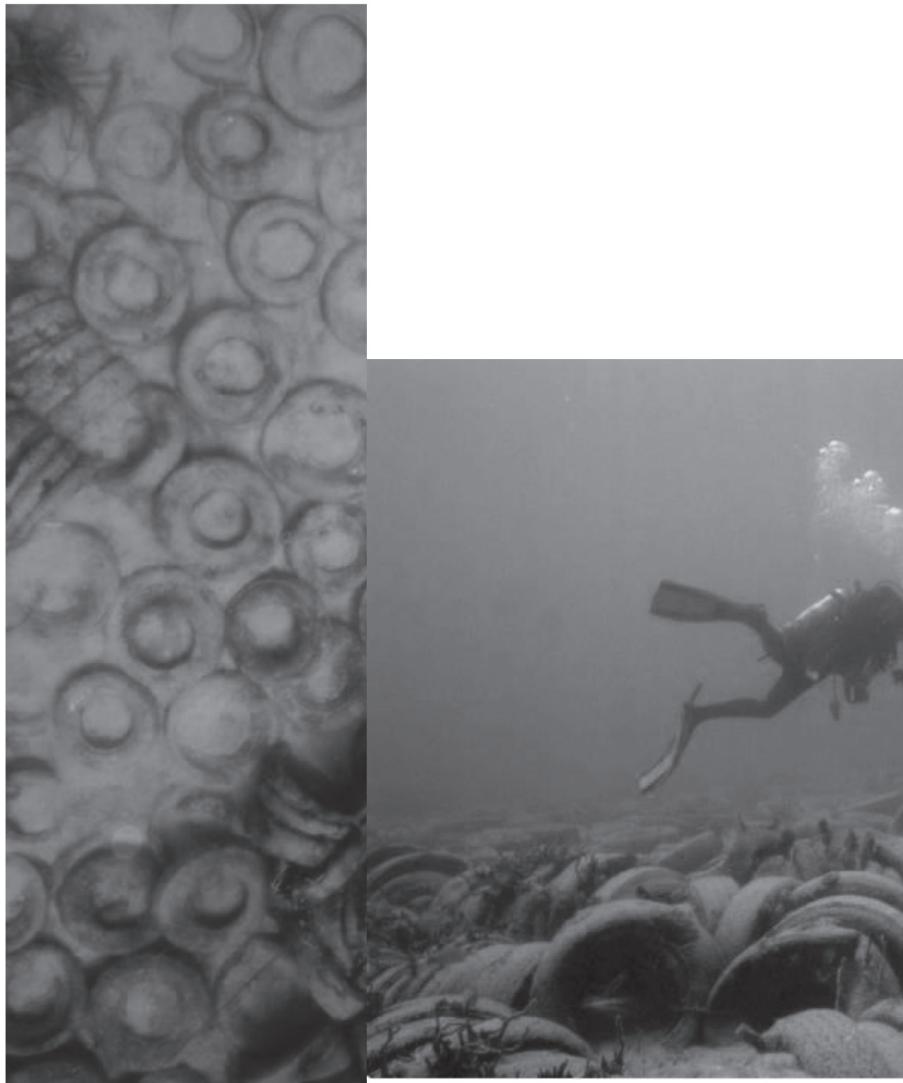
While they stayed in place, scientists soon learned it was cheaper and more effective to make the reefs out of concrete balls because the tires didn't have enough surface area for marine life to attach.

Indonesia and Malaysia mounted enormous tire reef programs back in the 1980s and are just now seeing the ramifications from littered beaches to reef destruction, Mr. Sobel said.

Most states have since stopped using tires to create reefs but they continue to wash up worldwide. In 2005, volunteers for the Ocean Conservancy's annual international coastal clean-up removed more than 11,000 tires from beaches.

The tires retrieved from the waters off Fort Lauderdale will be chipped for use in road projects and burned for fuel, among other reuses, as part of Florida's overall aggressive tire disposal program, said Michael Sole, chief of the state's Department of Environmental Protection.

"It's going to be a huge job bringing them all up," Mr. Sole said. "It's vigorous work. You have to dig the tires out of the sand."



Waste tires that cover approximately 36 acres of the ocean floor off of Fort Lauderdale, Fla. Up to 2 million old tires lie the ocean floor from a well-intentioned yet misguided attempt in 1972 to create what was touted as the world's largest artificial tire reef has now become an ecological disaster. Starting in June, U.S. Army and Navy divers will begin removing the tires as part of their annual training mission at no cost to the state.

Frank Schmidt, a captain and dive instructor from Lighthouse Point, dives over an expansive area covered with tires off Fort Lauderdale's Hugh Taylor Birch State Park in Florida.

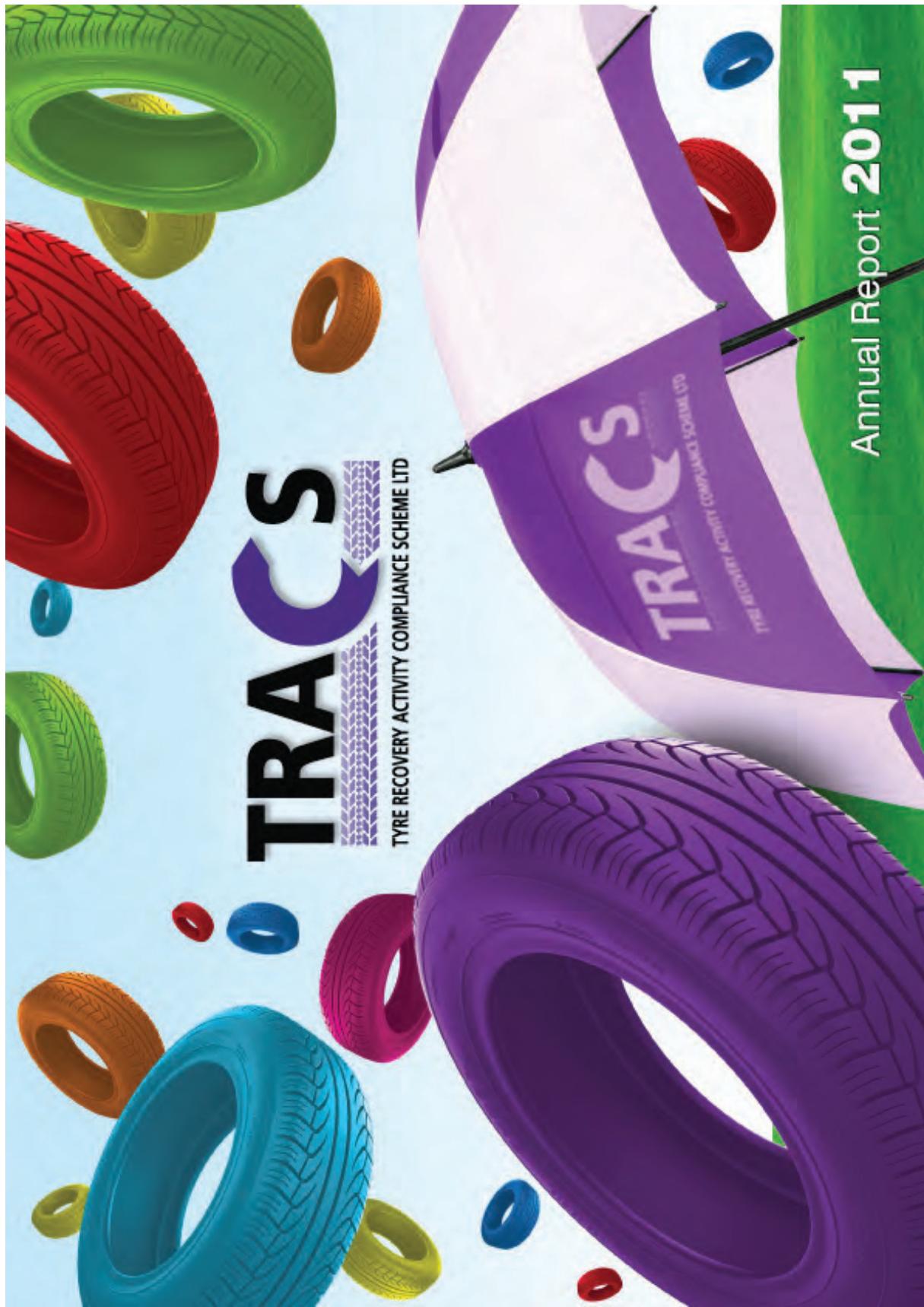


Waste tires that cover approximately 36 acres of the ocean floor off of Fort Lauderdale, Fla. Up to 2 million old tires lie the ocean floor from a well-intentioned yet misguided attempt in 1972 to create what was touted as the world's largest artificial tire reef has now become an ecological disaster. Starting in June, U.S. Army and Navy divers will begin removing the tires as part of their annual training mission at no cost to the state.

In 1972, tires were dumped from more than 100 boats off the coast of Fort Lauderdale, Fla., accompanied by the USS Thrush. On a signal from a Goodyear blimp, the boats dropped thousands of tires in hopes they would become a reef.



TRACS Annual Report 2011



Since TRACS came into operation in early 2008, its overall objective has been to ensure the proper channelling of all waste tyres in Ireland, by tracking and reconciling the movement of tyres and waste tyres through the supply chain.



TRACS has shown success in this regard in a short number of years. Much of TRACS' record is due to the positive reinforcement that the scheme receives from its members. Members include indigenous Irish companies as well as international tyre organisations. In making TRACS Ireland's largest tyre monitoring scheme of choice, TRACS' members have responded to their obligations under waste management regulations with a keen commitment to employing best tyre monitoring practice.

TRACS would like to take this opportunity to thank its members for their continued dedication and support.

Tighter control over the transfer of end of life waste tyres to their final destinations became more evident in 2010. A very respectable 51% of waste tyres were crumbed for conversion into saleable products, while almost 20% were exported as tyre derived fuel. Just over 11% were used by Irish farmers as agricultural ballast. About 4% per cent were exported whole for further treatment and 10% were baled. These figures illustrate that the potential value of end of life waste tyres is increasingly being recognised, with greater numbers of waste tyres being turned into further profitable products.

In 2010, co-operation between TRACS and the relevant authorities increased, with TRACS able to report on economic operators who may have employed incorrect procedures in dealing with their waste. TRACS has an obligation to report compliant and non-compliant economic operators to the Department of the Environment Community and Local Government as well as to the local authorities. It does this on a monthly basis. Waste collectors are counted by those who indicate they accept waste tyres and are not always those who actively engage in this waste management practice.

Agreed targets for monitoring of tyre waste were contained in The Minister's approval of TRACS in 2008. TRACS reported successfully on statistics in 2009, but since the designation of another certification scheme in 2010, TRACS can no longer operate under the conditions of its original approval.

This second scheme does not collect statistics on tyres supplied nor publish its membership list. In the absence of any metrics or membership listing from that second scheme, the operation and targets for 2010 unfortunately cannot be reported upon, nor can the reconciliation exercise be performed.

As things currently stand, the approval of the second non-functional scheme has compromised overall data collation and reconciliation. It is recommended that the approval for this second scheme be revoked.

As Ireland continues to chart its way through challenging economic circumstances, TRACS finds itself tasked with targeting an increased number of smaller operators in a significantly more fragmented industry. The appeal for small business to join a scheme which does not collect statistics on tyres supplied nor list its membership is obvious. Despite this, TRACS is doing very well in increasing its membership base, with numbers well up when compared with 2009 figures. The challenge will be to convince new players to make proper waste management, monitoring and assessment a priority within this continuously changing industry. TRACS is fully committed to playing its part in making sure that happens.

A handwritten signature of Fiacra Quinn.

Fiacra Quinn
Executive Director and Chairperson
Tyre Recovery Activity Compliance Scheme (TRACS)



TRACS
THE RECOVERY ACTIVITY COMPLIANCE SCHEME LTD

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3

1 Overview

TRACS is an independent, not-for-profit, private, limited company operating to provide certification to its registered producers demonstrating legal compliance. The Tyre Recovery Activity Compliance Scheme (TRACS) is Ireland's first and largest national approved compliance scheme. TRACS' certification and audit scheme provides a verifiable audit trail for the proper supply of new tyres and management of used tyres.

TRACS and its members aim to promote legitimate reuse and recycling of waste tyres. TRACS monitors the waste tyre life cycle including the end destination of significant numbers of part-worn, end of life waste tyres and recycled tyres from the retail and wholesale sectors.

By joining TRACS, tyre industry operators, suppliers and waste collectors fulfil their waste management obligations under the 2007 Waste Management Regulations.

Prior to 2008, the movement of waste tyres was unrecorded and unregulated. Subsequent legislation required that waste holders only give their tyres to permitted collectors, and that all tyre suppliers and collectors register with an approved compliance scheme or with the local authorities.

Waste tyres are considered by the Department of the Environment, Community and Local Government (DECLG) to have a legitimate re-use function primarily by farmers on sludge pits, but also on racetracks, marinas, etc., without any pre-treatment or reprocessing being involved.

TRACS welcomes the new Minister for the Environment, Community and Local Government (DECLG), Mr Phil Hogan, T.D. and aims that this will provide the Minister and his Department with a clear synopsis of the current situation regarding the monitoring of waste tyres in Ireland.

Conclusion

TRACS' overall objective has been to ensure the proper channelling of all waste tyres by tracking tyres and waste tyres through the supply chain. Essentially devised to operate a reconciliation system monitoring the movement of tyres through the supply chain, it has been successful in this regard.

To oblige the requirements and prove that retailers are giving their waste tyres to authorised receivers, data is requested from two points in the supply chain, firstly regarding where retailers sourced their tyres, and secondly what retailers are doing with the waste generated from one-for-one replacement fittings. As per the approval granted to TRACS by the then Minister, John Gormley, these submissions were to be reconciled against those parties supplying the retailers as well as those removing the waste. Such an exercise proves the efficacy of data submissions.

However, since the recent approval of another certification scheme in 2010, which does not collect statistics on tyres supplied nor publish its membership list, TRACS can no longer operate under the conditions of its original approval.

As things currently stand, the approval of the second non-functional scheme has compromised overall data collation and reconciliation. It is recommended that approval for this second scheme be revoked.

2011 Membership, 2010 data	
TRACS Members	Units Reported
Importers/ producers	2,207,748
Retailers	1,465,736
Waste collectors	2,029,286

2 Corporate Structure

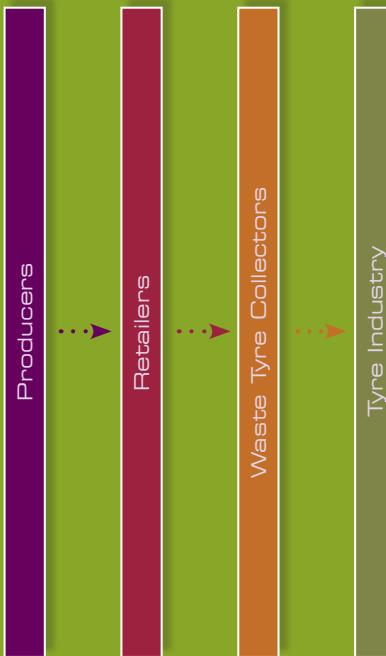


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3 Our Modus Operandi

The TRACS model was based on two main factual criteria.

1. The fact that there is a network of producers, retailers and waste tyre collectors operating in the tyre industry; and
2. That the sector is in a position to exert tight control over the transfer of tyres between the different parties.



In the approval of TRACS, performance was related directly to units as a ratio of the total stock movement in Ireland. Allied to this performance was the ability of TRACS to report compliant and non-compliant economic operators to the DECLG and the local authorities, which it does monthly. Furthermore and very importantly, under the approved reconciliation exercise, TRACS was able to report those economic operators who may have incorrect procedures in dealing with their waste: this list was included in previous years' reports for the DECLG and the local authorities to act upon.

TRACS has no role in the enforcement of the Regulations or in the enforcement and inspection of waste collectors and facilities under current permitting regulations.

The membership of TRACS for 2010 was available on the website, www.tracsireland.ie throughout the year.

There were agreed targets within the Minister's approval of TRACS in 2008, but since the approval of the aforementioned second scheme and in the absence of any metrics or membership listing from that scheme, the operation and targets for 2010 unfortunately cannot be reported upon, nor can the reconciliation exercise be performed.

TRACS can however, report on 2010 metrics and current registrations, operations and PR, as well as the implementation of initiatives and recommendations of stakeholders and committees.



Farmers were registered through their transactions with waste collectors. Waste collectors with valid permits and in good standing with their respective local authorities were registered.

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3.1 Statistics, 2010

The 2010 CSO statistics indicate that approximately 2.6 million category 1 (car) tyres were imported and supplied in the Republic of Ireland. TRACS and the industry are of the opinion that this figure is considerably overstated. There are good grounds for this opinion.

Firstly, the car parc in Ireland is only 1.9 million cars. Using the accepted wear rate of 0.9-1.1 tyres per car per year, this would indicate only 2 million tyres were replacement fit.

Secondly, statistical returns and membership of importers are consistent with the previous year's operation, but have not varied in line with CSO data for 2010. Thirdly, international industry reports and sources estimate that net imports into Ireland are approximately 2 million or less for category 1. In total, this would equate to 30,000 tonnes of waste.

Table 1: Total Details of Tyres Supplied in 2010 (CSO)*

UNITS Supplied, RoI, 2010*	Tonnes	Category: Description
2,628,648	21,029	1. Car, Van
57,307	3,152	2. Buses And Lorries
16,168	81	3. Tyres, Pneumatic, New, Of A Kind Used On Motorcycles
61,634	2,311	4. Front Tractor tyres and tyres for industrial vehicles, Larger tyres for tractors, forestry and farm vehicles etc.
13,092	2,357	5. Large tyres for construction machinery
24,191	1,331	6. Retreads: MOST likely Truck
7,743	62	6. Part worn/ used: MOST likely Car
2,808,783	30,322	

* CSO, as reported.

3.2 Performance

The performance relates to units covered under TRACS' membership. This is usually expressed by company or economic operator, but TRACS has gone further and expressed this by any individual outlet supplying tyres.

3.2.1 Producer, Supplier, and Waste Collector Information in Aggregate

Economic operators make up a wholly mixed group of suppliers, as shown in Table 3. Waste collectors are counted by those who indicate that they accept waste tyres and are not always those who actively engage in the practice. There are many waste collectors in Ireland that are permitted and have the ability to collect and accept waste tyres, but their normal commercial practices would be in other areas.

Table 2: Return of Unit information by sector in 2010

Classification	Units		
Category	Imports	Retail	Waste
	1,931,320	1,366,522	1,984,943
	213,089	80,999	42,931
	20,588	0	0
	39,828	14,315	1,410
	2,923	0	0
TOTAL	2,207,748	1,461,836	2,029,284

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Table 3: Membership by Economic Operator (by Site), 7th June 2011

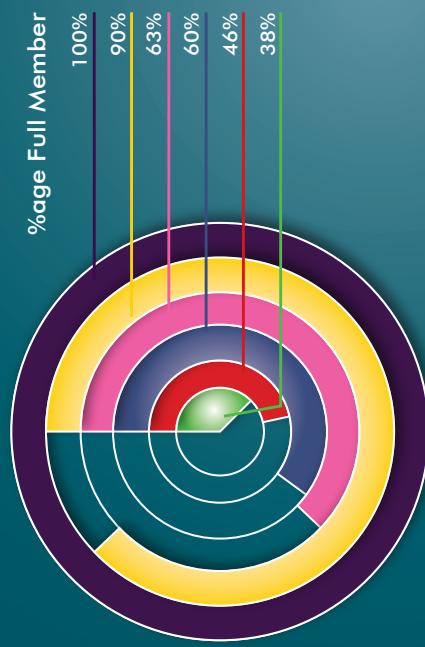


Table 3: Membership by Economic Operator (by Site), 7th June 2011

Member	Non-Member	Non-Member	Grand Total
Tyre Manufacturer	5	0	5
Tyre Distributor	9	1	10
Tyre Shop	344	199	543
Tyre Wholesaler	6	4	10
Waste Collector	21	25	46
Other	333	545	878
	718	774	1,492

The performance relates to units covered under TRACS' membership. This is usually expressed by company or economic operator, but TRACS has gone further and expressed this by any individual outlet supplying tyres.

The destination of waste tyres in 2010 was reported, as follows in Table 4.

Table 4: Return of Waste Collector information measured as a %age of total units supplied in 2010

Total %	Management	Baled	Crumbed for product	Exported whole for further treatment	Exported as Tyre Derived Fuel	Delivered to farmers for use as agricultural ballast in Ireland	Re-sold in Ireland for re-use	Other
10.46%	50.51%	4.07%	19.89%	0.22%	11.33%	2.14%	1.38%	

These figures illustrate that the potential value of end of life waste tyres is increasingly being recognised, with greater numbers of waste tyres being converted into further innovative and profitable products for sale.

3.2.2 Farmer Registrations

Farmer registration occurs where the farmer receives tyres from an authorised collector. Registration of farmers is a live process and occurs as it happens as a transaction. Throughout 2010, farmers received about 74,000 tyres from waste collectors.

There is no target with respect to transactions, but farmers do have limits on the amount of tyres used per square metre of silage pit floor area and on the total number of waste tyres on their farms.

3.3 Reconciliation

The TRACS system was based on a reconciliation of material flows, to be supported by a rationalisation and auditing of current practice. In previous years, TRACS was able to report on members and non-members who could not substantiate their waste management practices and identify importers who were not compliant or were not a member. This purpose of reconciliation was to show the waste being channelled to legitimate sources. The results of the exercise were communicated to the DECLG and the local authorities.

Now that there is a second scheme approved, the reconciliation model operated by TRACS can no longer be used as a valid means of tracking tyres and waste tyres.

3.4 Audits

TRACS' approval included the quantitative and qualitative audit of all types of economic operators. After the airing of RTE's Prime Time Investigates programme, the attention focused on the waste collectors who were members of TRACS. Ten businesses have been audited (accounting for over 60% of the total number of waste tyres) and over 80% of TRACS members.

The audits were compliance based, but not substantive, given the fact the collector may be servicing members of the second scheme. All participants passed.

3.5 Information to and from Local Authorities

TRACS has reported to the local authorities and the DECLG every month on the entire known supply chain and waste collectors in Ireland, as well as those who are participating in TRACS, those not participating and those farmers who have received tyres. These reports contain information on all importers and collectors as well as all retailers specific to each local authority's functional area. Contact details for each outlet, including CRO number, were provided where available. Many local authorities were visited by TRACS and the Irish Tyre Industry Association in order to provide assistance and report on compliance. TRACS also queried local authorities on the permitting, inspection and enforcement activities.

In 2010, TRACS commissioned a Guidance Note to be presented to the Environmental Protection Agency. This was done to assist the local authorities in their enforcement of the Regulations. However, given the change in government and a review to be carried out in 2011, this Guidance Note remains in draft.



3.6 Public Awareness & Media Report

3.6.2 RTE Prime Time Investigates

RTE aired a programme on waste tyres in May 2010, with much of the opportunity being landed at the feet of waste collectors, local authorities, and the then Minister, John Gormley. There were a number of inaccuracies across the entire programme, and TRACS addressed those relating to its area of operations. This was done by issuing a press release to all stakeholders and members. Some errors in the programme were rebutted, as follows:

Customers are being charged a fee to have their tyres taken away and recycled.

There is no provision for a levy in the legislation and TRACS does not charge one. There is no provision in the Regulations for a levy on waste tyres. It is up to the retailer who holds the waste and the collector to decide a price between them to take away waste tyres for recycling. There is no legislative imperative on the retailer to pass on this cost to the customer or to show it separately, but similar to any business overhead such as heat and light, they can do so if they wish.

TRACS maintains a Press Book. In the second half of 2010, there were 112 media inclusions, 52 of which related to TRACS.

Other Activities included:

- Speaking at ITIA regional meetings, to inform non-compliant operators in particular areas;
- Issuing of statement regarding TRACS' position after Prime Time programme;
- Meeting with local authorities;
- Initiating NCAD project, to promote the legitimate reuse of waste tyre products in industrial design;
- Trying to get support for IFA promotion with TRACS/ ITIA members;
- Design of annual report 2010; and
- Preparation of an Oireachtas Committee presentation, October 2010.



TRACS
THE ACTIVE ACTION COMPANY

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Prime Time asserts that Breda McHugh, Director of TRACS, represents a company which is non-compliant with the Waste Management Regulations. Breda McHugh was nominated by the ITA to sit on the Board of TRACS as an independent person. It is incorrect to say that she represents Delvin Tyres, where she was a part time employee. Mrs McHugh has since resigned from the Board of TRACS.

Prime Time stated that they put in numerous and repeated requests to interview a TRACS representative. They said that all requests were declined and that a spokesperson from TRACS said that they did not want to appear on camera. TRACS did not wish to put someone forward on camera, but TRACS did meet with the Prime Time presenter, giving an interview of over an hour and a half in length, which discussed various issues. This was recorded by TRACS. Prime Time did not attempt to contact any member of the Irish Tyre Industry Association, although contact details were supplied by TRACS of persons who would have been readily able to help them with their enquiries. In any event, judging by RTE's interviewing technique, it proved the correct decision.

SUMMARY

Despite 2010 being a difficult trading environment for the tyre industry as a whole, membership of TRACS increased and is still rising satisfactorily through to the end of 2011. 100% of tyre manufacturers, 90% of tyre distributors, 63% of retail outlets, 60% of wholesalers and 46% of waste collectors are now members of TRACS. 38% of operators where handling and supply of tyres and waste tyres is incidental to core business activities are also members. Word of mouth recommendations from members serve as a positive reinforcement of TRACS' operating model.

TRACS continues to make sure that it is beyond reproach in executing its function; that of ensuring the proper channelling of all waste tyres in Ireland. TRACS also provides very good value for money to members in carrying out this role. Being a member of TRACS saves time and money for all involved.

TRACS disputes the 2010 CSO statistics (3.1) regarding the numbers of car and truck tyres imported into Ireland and acknowledges that these figures affect TRACS' own calculations which TRACS and the tyre industry believe to be correct.

It is unfortunate that the overall waste monitoring operation and targets for 2010 cannot be reported on for the purposes of this report, but since the designation of another certification scheme in 2010, TRACS can no longer operate under the conditions of its original approval.

As this second scheme does not collect statistics on tyres supplied nor publish its membership list, reconciliation of data for the industry as a whole is not possible. The approval of the second non-functional scheme has compromised overall data collation and reconciliation. Claims of any large scale membership by this body are a fabrication. In this respect, approval for this second scheme should be revoked and the scheme wound-up.

OUTLOOK

TRACS observes that the increasing number of small industry operators, including many sole traders, means that the carrot of full tyre waste management compliance, dangles a little further ahead. Despite that, TRACS is currently making great strides in attracting new members and aims to continue this upward movement into 2012.

Other objectives for the forthcoming year include:

- Continuing to build profile within the industry;
- Approving the membership of retailers provided they undertake to use only authorised collectors for the consignment of waste tyres;
- Approving membership where applicants can demonstrate an ability and willingness to return data requests;
- Auditing the supply flow of the tyres from the importers, brand agents, remoulders/retreaders and wholesalers, to the final retailers;
- Audit details of the acceptance of the waste tyres by authorised collectors, and screened casings by remoulders/retreaders, from the retailers; and
- Audit details of the final consignment of the waste tyres to authorised facilities.



Contact

For any queries about TRACS
please contact:

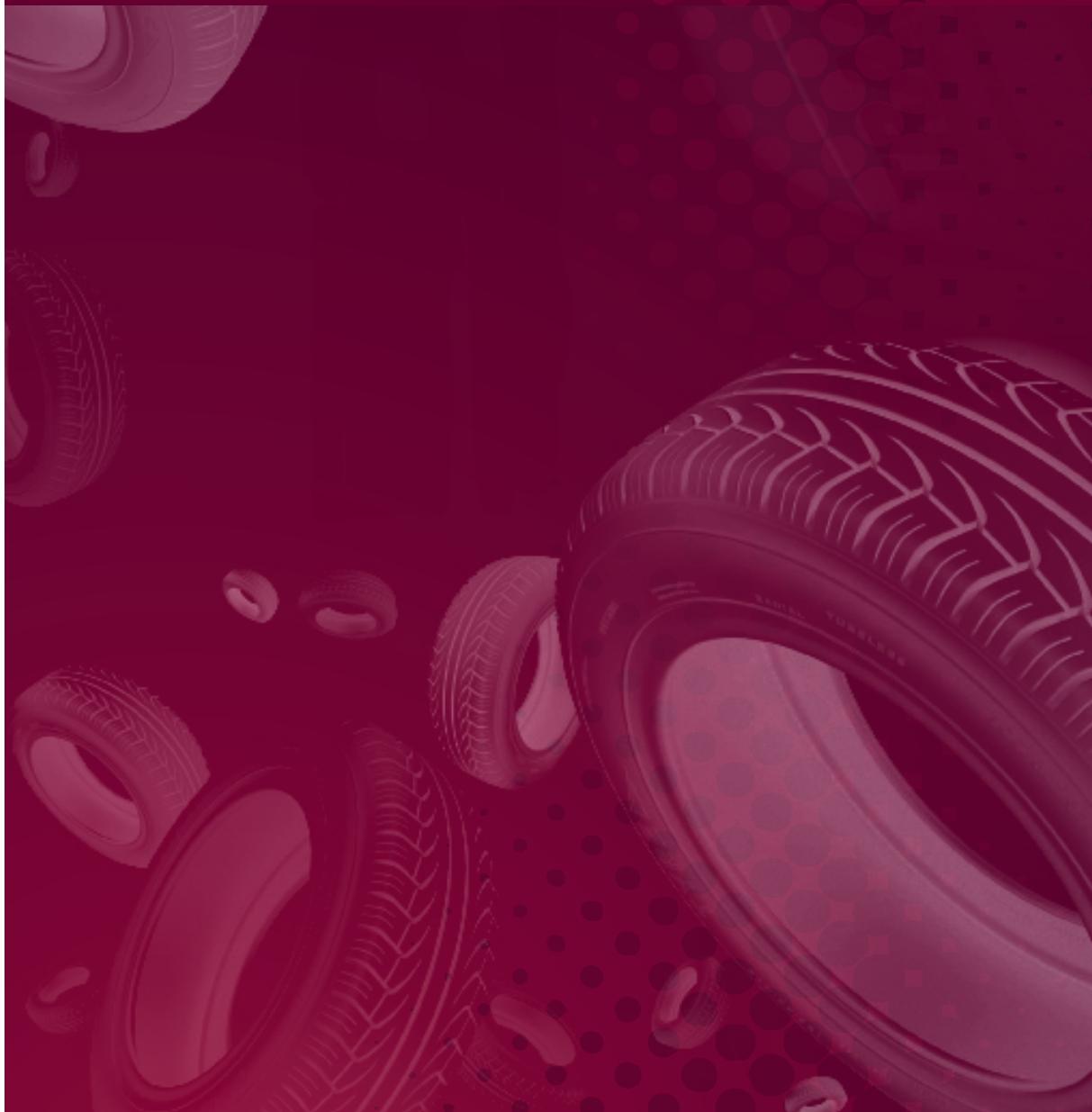
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TRACS
THE RECOVERY ACTIVITY CONFINEMENT SCHEME LTD



Bridgestone European Environmental Commitment and Performance Report



Environmental Commitment and Performance Bridgestone Europe | 2011



It's not only what you make,
it's also **how you make it**

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2

Bridgestone Europe HQ, Brussels, Belgium



One Team, One Planet.

Our Environmental Mission Statement

To help ensure a healthy environment for current and future generations...

We, the Bridgestone group, are committed to continually working toward a sustainable society with integrity and in unity with our customers, partners, communities and the world around us.

Focus on three objectives

To translate this mission statement into action, we have defined 3 main objectives for eco-development:

In Harmony with Nature: to contribute to biodiversity through habitat enhancement, and through environmental education and research.

Value natural resources: to continually improve natural resource conservation through operational improvements and product design.

Reduce CO₂ emissions: to continually reduce emissions of Greenhouse Gases, including CO₂, from our products' complete life cycle.

How and Where

The environmental mission is implemented through two core strategies: the commitment to an open environmental communication, and the implementation of TEAMS (Total Environmental Advanced Management System: organizing environmental activities in a consistent and harmonized way on global basis and in line with the ISO14001 standard). The Bridgestone group's environmental mission covers all aspects of our business. We strive to improve our products and services on an ongoing basis, and so help our customers conserve natural resources. We fine-tune our operations, expressing our concern for the environment by selecting optimal raw materials, enhancing our production processes and deploying powerful logistics and we volunteer time and resources for community activities dedicated to environmental and social improvements.



<http://www.bridgestone.eu/corporate/environment/mission>

Bridgestone Europe

- ↑ **European headquarters** in Brussels
- ↑ Around **14,000 staff** in 20 European countries
- ↑ Extensive research infrastructures in Italy: a major R&D and testing centre, and a state-of-the-art proving ground inaugurated in 2004
- ↑ **8 tyre manufacturing plants**
France (1), Hungary (1), Italy (1), Poland (2) and Spain (3)
- ↑ **1 plant for the production of treads** for truck and bus tyres (Belgium)
- ↑ **6 retreading facilities**
- ↑ **2 intermediate product factories**
- ↑ **3 European logistics centres**
- ↑ **20 national sales companies**

Close to customers, wherever they are

The Bridgestone Group - the **world's largest** in its industry - produces **high-quality tyres and rubber products** for customers around the globe. We take great pride in the staff of over **140,000 employees** who embody this worldwide presence. Together, we run 184 plants, 5 technical centres and 12 proving grounds, and market our products in more than 150 countries.

The Bridgestone Group companies operate under the guidance of their parent company, the Bridgestone Corporation, which is headquartered in Tokyo. Key regional divisions of the Group include Bridgestone Europe NV/SA and Bridgestone Americas Holding, Inc., which have built up extensive activities in their respective markets.

Bridgestone Europe develops, manufactures, tests and sells tyres both as original equipment to vehicle constructors and for the replacement market, and **achieved EUR 3.1 billion of Net Sales in 2010**. Products are also exported outside Europe, for example to Japan.

Tyres account for 80% of the Bridgestone Group's sales, but our expertise extends beyond tyres to industrial rubber and chemical products, office equipment components, sporting goods and bicycles. The Group as a whole generated Net Sales for **USD 35.1 billion in 2010**.

We view the global scope of our operations as a privilege and a responsibility. It enables us to assist communities on five continents as they strive for safer transport and greater sustainability. Their needs, their expectations and their trust inspire us to reach for new heights every day.



Bridgestone Technical Center, Rome, Italy

Our environmental commitment | Our environmental performance | Our environmental initiatives

Eco-friendly, reliable tyres

Our customers rely on us to supply tyres that will contribute to a safe, enjoyable motoring experience. They value products that will maximise a car's ability to cope even with the heaviest rain, and that will allow for the precise, responsive handling and braking that are crucial when drivers are faced with an unexpected obstacle. We meet our customers' expectations by designing tyres with excellent grip.

Safety performances of a tyre such as **wet grip** are the **first priority** for Bridgestone, while tyres that help a vehicle to use less energy to move require different characteristics. Designing tyres that combine outstanding **safety** characteristics with high **fuel efficiency** has therefore traditionally involved a performance trade-off.

Technology enhances tradition...

This dilemma exemplifies the complex challenges involved in manufacturing truly exceptional tyres. Tyres have evolved into **high-tech components** where all aspects of production and design are scrutinised and optimised for best results. Bridgestone's engineers excel in this delicate art and seize every opportunity to improve on past successes.

Reconciling the conflicting requirements of road safety and sustainability ranks highly among our R&D objectives. Our latest achievements in this area include the **NanoPro-Tech™** technology, which optimises the distribution of fillers in the compound used to produce the tyre and reduces the friction of the molecules.

This process helps to limit rolling resistance without compromising continuous improvement in safety. Technological advances such as these consolidate our long tradition of excellence in tyre manufacturing and boost our ability to design reliable, eco-friendly products.

...transparency enhances trust.

Consumers in the European Union will soon be able to ascertain the environmental and safety performance of new tyres at a glance. Standardised **tyre labelling**, to be introduced by the end of **2012**, will require tyres to be **graded for wet grip, fuel efficiency and exterior noise**. Bridgestone welcomes this initiative, which will provide motorists and the automotive industry with some of the key information required to compare products.

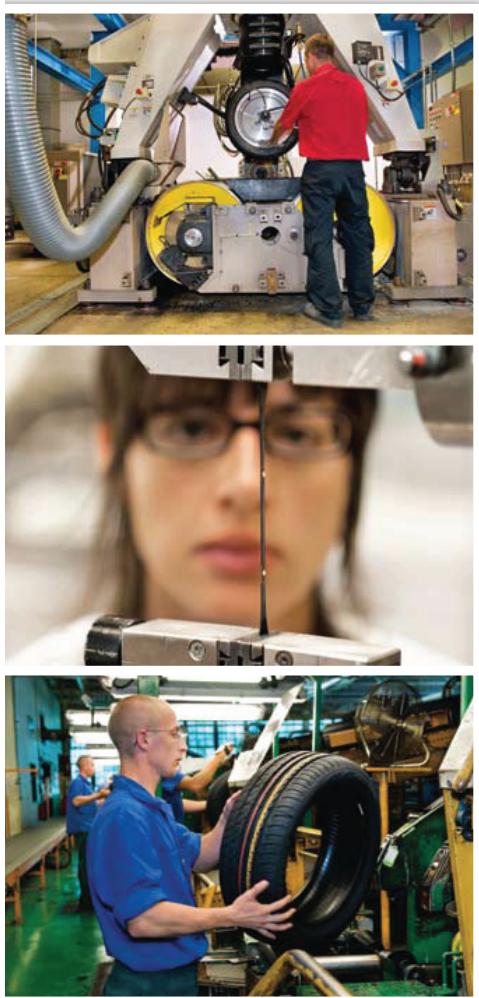
Comprehensive information on the European tyre labelling regulation is available at <http://www.bridgestone.eu/tyres/tyre-advice/eu-tyre-labeling>



1 Wet grip: one of our priorities

2 Tyres: high-tech products

3 Tyre labelling in the EU: compulsory from 1 November 2012



Testing and quality control, a key requirement at all stages

A systematic approach to eco-design

To ensure that **environmental aspects** are taken into account at all stages of tyre design and production, Bridgestone has implemented processes that place environmental considerations firmly at the centre of its activities.

All tyres produced by Bridgestone Europe are manufactured by plants which run annual environmental programmes and which are certified according to the **ISO 14001** standard. This standard issued by the International Organisation for Standardisation sets out stringent requirements for the environmental management systems that support the implementation of an organisation's environmental policies and programmes.

Analysing the life cycle of a tyre...

In 2002, Bridgestone's Technical Center Europe launched a Product-Oriented Environmental Management System (**POEMS**) to fine-tune the design of its tyres. The system has received ISO 14001 certification and is verified every six months to confirm that it remains geared to compliance and continuous improvement of environmental product performance. It is simple, flexible and effective.

The POEMS process began with an analysis of the environmental impact of a representative passenger car tyre throughout its entire life cycle. This **Life Cycle Assessment (LCA)** was performed in 2001 in the wider framework of the European Tyre and Rubber Manufacturers' Association (ETRMA). It examined resource usage and emissions at all stages, from raw materials extraction and manufacturing through transportation and distribution to use, re-use, maintenance and recycling or final disposal.

...for the purposes of product-oriented environmental management

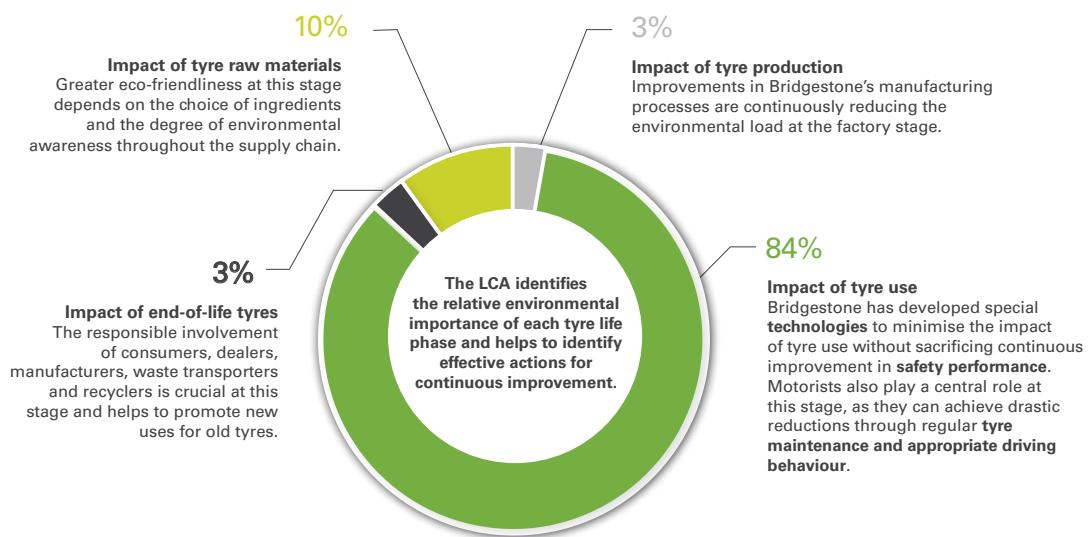
The LCA revealed that the **environmental impact** of tyres depends primarily on **product design and usage**. Following on from this initial analysis, POEMS has been deployed to pilot analyses of the various design features that affect the environmental parameters of tyre use. These include the implications of material selection and tyre geometry on external noise, rolling resistance and wear. POEMS guides all our processes. It ensures that the environmental impact of our tyres is reliably controlled at all stages of product design.



Four life cycle stages, four opportunities to make a difference

The **use phase** accounts for no less than **84% of the environmental impact of a tyre**. Bridgestone strives to limit the impact of its products at all life cycle stages, but the data suggest that the use stage offers the greatest scope for significant reductions. By comparison, the end-of-life stage represents just 3% of the total environmental impact.

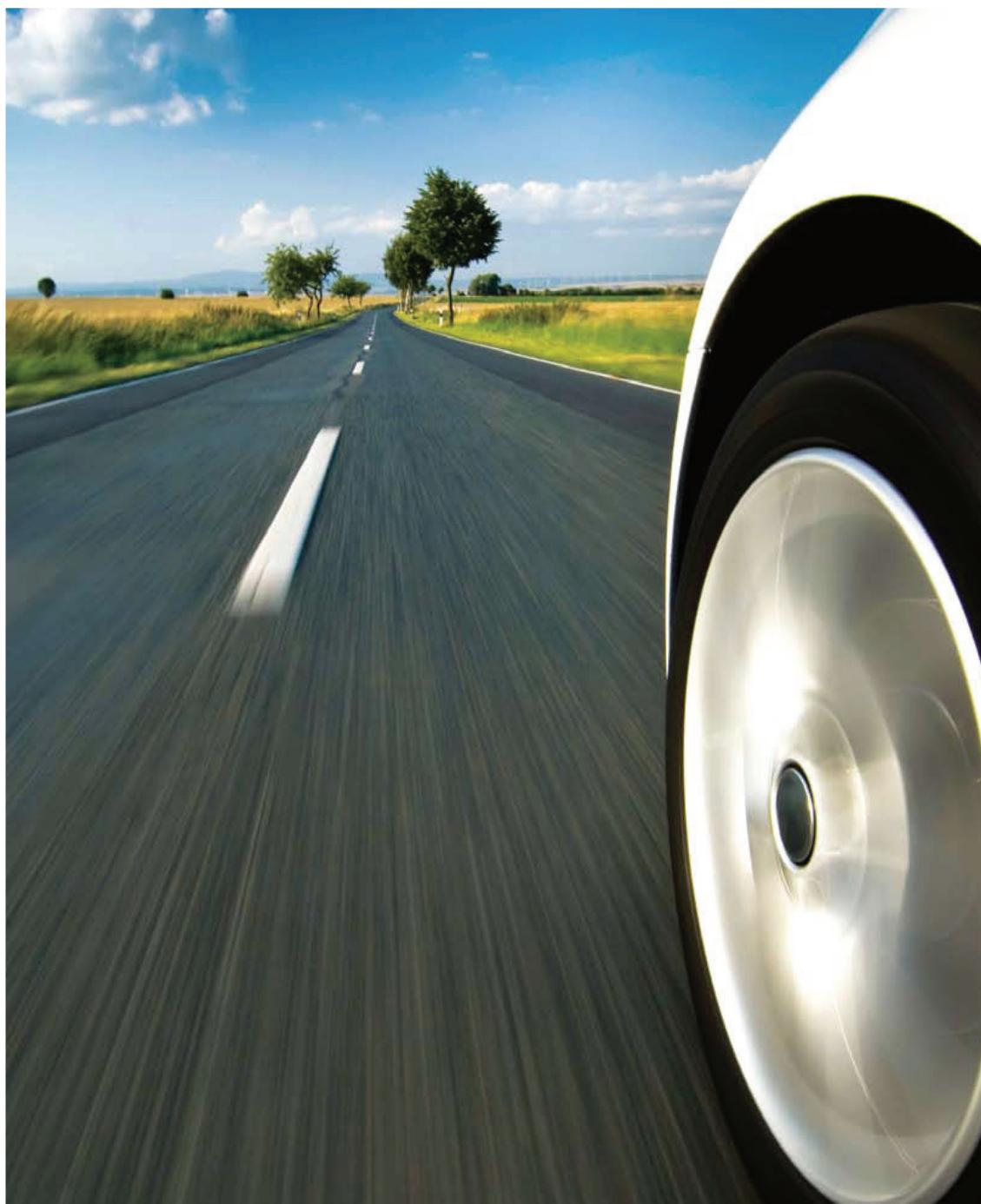
The life cycle stages



The above mentioned figures refer to the ETRMA tyre life cycle assessment of a passenger car tyre. These are calculated in terms of "total environmental impact" using the Eco-indicator 99 methodology which analyses and weighs all potential environmental damages (e.g., ozone layer depletion, ecotoxicity, acidification, eutro-

phication, land-use and others including - but not limited to - climate change). The full text of the European tyre LCA study is available upon request by contacting: environment@bridgestone.eu Other studies focus on the global warming potential of a product and provide results in terms of CO₂. For example, the

Japan Rubber Manufacturers Association study states that the CO₂ emissions repartition during a passenger tyre life cycle is: Raw Materials 4.1%, Production and Logistics 1.7%, Product Use 87%, End of Life 7.2%.



Our environmental performance

At Bridgestone, we have been producing tyres for nearly **80 years**. We look back on this long tradition with gratitude for the trust of our customers and for the dedication and ingenuity of our staff. Generations of Bridgestone employees have helped to keep our products ahead of the curve since 1931. We hope that future generations of Bridgestone colleagues will look back on our shared history with the same sense of continuity and pride.

It follows that we assess our products both in terms of their technical performance and in terms of their impact on the environment. Building on the tyre life cycle analysis, we have launched ambitious, **comprehensive initiatives to limit their ecological impact through:**

- ↑ a sophisticated selection of materials
- ↑ optimised production processes
- ↑ advanced technologies for eco-friendly tyre use
- ↑ new uses for old tyres



Gianluca Tosatti

European Regulations and Environmental Affairs Manager
Bridgestone Technical Center Europe, Rome

"The European tyre industry is currently going through **major changes** at all business operations stages: material procurement, production and product design.

We have phased out highly aromatic oils, and we have implemented accurate processes to ensure that our **material supply chain** complies with the recent European regulations on chemicals (CLP, REACH*). At the tyre manufacturing stage, we continue to **reduce our carbon footprint**, an initiative which also ties in with the forthcoming European CO₂ reduction targets. And we are preparing for the implementation of the new EU regulations **relating to minimum tyre performance requirements and tyre labelling**.

The introduction of labelling is in itself an epic change. By the end of **November 2012**, passenger car tyres and many types of truck tyres sold in Europe will have to be **labelled**. The labels will enable tyre manufacturers to **rate** their products for three of the key performance indicators: **fuel efficiency, wet grip and exterior noise**.

Reliable labelling will help consumers to make informed choices, and it will be an opportunity for Europe's tyre manufacturers to showcase some of the key features of their products. Tyre manufacturers can anticipate the labelling on a voluntary basis before it becomes mandatory.

Preparing for the introduction of the labels has involved a company-wide effort. It is not just a matter of printing the label, but also of aligning our testing and knowledge management processes with the specificities of the new regulation. This also requires the development of training procedures and the involvement of many functions, from design to logistics to process control through to the dealer network and our partners. **Every function in the company has been involved and has contributed to this.**

Bridgestone has invested in systems and processes that will ensure that our labels are fully **reliable**. Sample checks by the authorities are planned, and we are in favour of any further controls aiming to promote an effective implementation of labelling throughout the sector.

Our environmental commitment | Our environmental performance | Our environmental initiatives

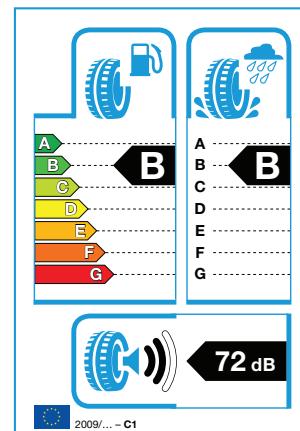


We promote continuous improvement, at all stages of the life cycle. We rely on our staff to translate this policy into daily action, and we have developed powerful systems to support them in this process. Bridgestone's Technical Center in Rome is a key driver of innovation throughout our European operations.

Wet grip, fuel efficiency and exterior noise are not the only parameters that define the quality of a tyre. At the Technical Center, we are just as interested in other aspects - **aquaplaning, dry grip, handling control, interior noise, wear resistance and so forth**. While there will certainly be a particular interest in the label performances, we will continue with our goal to **improve the performance of our tyres across the board**. We have hundreds of engineers developing new materials, new designs, new tread shapes every day. They are involved in a number of programmes focusing on environmental, safety or supply chain aspects."

*The EU regulations on Classification, Labelling and Packaging (CLP) and on the Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH).

EU Tyre Labelling Regulation

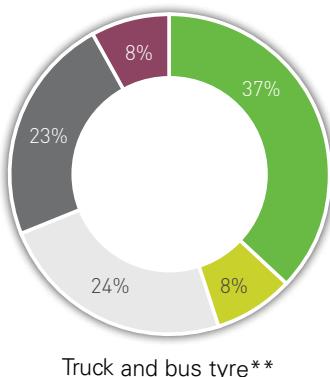
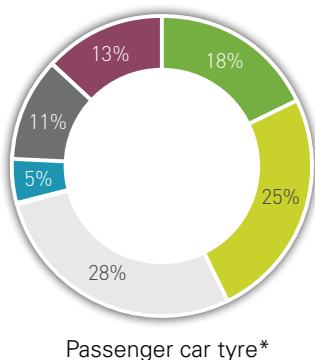


"The labels will enable tyre manufacturers to rate their products for three key performance indicators: **fuel efficiency, wet grip and exterior noise**."

A sophisticated selection of materials

Key ingredients

Tyres consist primarily of **synthetic and natural rubber**. Other materials are added to improve performance, durability and safety. Processing transforms these substances into a new material - the vulcanised rubber compound from which tyres are mainly made.



Natural rubber

With its unique elastic properties, the sap of the **rubber tree** remains an essential element of a tyre. Truck tyres contain even more of this key ingredient than passenger car tyres.

Synthetic rubber

Usually produced from **petroleum or natural gas**, synthetic rubber is added to natural rubber to achieve the desired **elasticity**.

Fillers

Carbon black and silica are widely used to provide the necessary **structure** to the compound.

Textile

In passenger car tyres, **rayon or polyester cords** are radially disposed along the carcass ("radial tyre"), while **nylon cords** are placed under the tread or near the bead area.

Steel

High-strength steel cords are applied under the **tread** of passenger car tyres and in the **carcass** of truck tyres, while other steel wires are located near the **bead** to assure adherence to the rim.

Other materials

Other materials, such as **oils, sulphur and zinc oxide**, have various functions. Anti-degradants are used to protect the compound.

* Source: Average LCA data, ETRMA 2001
** Source: Bridgestone Technical Center 2009



1 Reinforcing materials: steel and textile cords
 2 Natural and synthetic elastomers
 3 Carbon black
 4 Wax, stearic acid and resins

Promoting awareness throughout the supply chain

Bridgestone Europe relies on in-house supply capabilities for a part of its natural rubber, synthetic rubber, carbon black and steel cord. This part of the supply chain is, therefore, covered by internal environmental protection arrangements.

Environmental considerations also rank highly among the criteria we apply when choosing suppliers, with **ISO 14001-certified suppliers** benefiting from a selection advantage. Our suppliers' compliance with legal and other requirements is verified.

Using reclaimed materials

Reduce, re-use, recycle - Bridgestone has adopted a range of **waste reduction initiatives** as part of a wider effort to limit its ecological footprint. Most of the zinc oxide used in tyres is made from recycled zinc, for example. Other relevant recycled materials include crumb rubber, a substance generated by crushing the waste rubber of used tyres.

However, a high proportion of recycled rubber tends to translate into a **loss of compound durability performance**, also increasing tyre wear and rolling resistance and consequently reducing service life and fuel efficiency. As of today, the limited and unstable supply of high-quality crumb rubber adds another layer of complexity. Bridgestone uses post-consumer recycled tyre material in all its tyre lines, but limits the crumb rubber content to small amounts that cannot affect the quality of the product.

Investing in innovation

Bridgestone's Technical Center Europe develops and upgrades compounds and reinforcing materials in order to **enhance the on-road performance and the sustainability of our tyres**. The use of innovative chemicals in this process is tightly **controlled** to ensure that these substances meet the various environmental and legal requirements. All design choices are assessed in terms of their impact throughout the entire life cycle of the product.

Optimised production processes

Tangible results

Our Group's concern for the environment has triggered a series of profound changes at Bridgestone Europe. With the help of our environmental management system, we have implemented **a range of projects and programmes to boost the environmental sustainability of our operation**.

The starting point for these initiatives was a detailed analysis of the environmental aspects of our production. This analysis enabled us to pinpoint aspects with a significant impact on the environment and adopt internal procedures to control them. All Bridgestone Europe tyre plants are **ISO 14001:2004** certified,

and our environmental improvement programmes are carried out and verified within the framework of this standard.

The table below documents the evolution of key environmental indicators linked to our manufacturing processes, highlighting the **improvements** we have achieved since this process was launched. **The data represent production efficiency in terms of input or output per ton of tyres.**

We monitor these indicators carefully, and we continue to seek out new opportunities to refine our environmental performance.

Ratio (divided by production volume)

	Water consumption [m ³ /ton]	Solvent consumption [kg/ton]	Waste generated [kg/ton]	Energy usage [Giga Joule (GJ)/ ton]
2003	9.0	7.4	57	9.7
2004	8.4	6.6	55	9.4
2005	6.8	5.4	52	9.1
2006	6.3	4.0	49	8.9
2007	5.7	3.2	46	8.5
2008	6.1	3.0	51	8.7
2009	6.0	2.8	61	10.3
2010	4.5	2.2	54	9.2

Source: Bridgestone Technical Center Europe

* Being related to production volume, some of the figures from 2008 reflect the effects of an industry-wide slowdown and the opening of new factories and production lines, which affected the environmental efficiency during the start-up phase. Bridgestone Europe has launched environmental improvement programmes with the aim of exceeding, in the shortest possible time frame, the excellent results achieved before the facilities expansion. The data have been updated to represent the main 6 factories until 2008, and 9 factories as of 2009, including the new ones.



Constant efforts are made to reduce the carbon footprint of our tyres.



Saving energy

We attach great importance to the **efficient management and rational use of energy**, and the fact that we have nearly halved the amount of energy used to produce our tyres shows that our efforts are meeting their mark. We expect to use approximately **8.5 GJ** to manufacture a ton of tyres in 2011, compared to **17 GJ** in 1990. Our efforts to save energy have enabled us to reduce our emissions of greenhouse gases dramatically over the years. Key technological and organisational improvements include the introduction of cogeneration facilities producing energy and heat from a common fuel source.

Reducing water consumption

Bridgestone Europe is keenly aware of the need to conserve water, one of the world's most **precious** resources. By 2010, water consumption per ton of tyres produced by our plants **has been halved** of the amount used in 2003, reaching very low figures for this type of product. We obtain no more than 15% of our water intake from deep wells.

Revaluing waste

As inevitable for an industrial activity, also our manufacturing processes generate various types of waste – such as out-of-spec rubber, textile and metallic wastes, vulcanised tyres, raw material packaging, dust from indoor testing and trimming phase. Further to our constant efforts to reduce their generation and conscious of their residual value, we strive to find out greener applications for our scrap material in similar or different processes. In 2010, Bridgestone Europe had reached a level of **75.5%** of industrial wastes sent to **recycling** or used to **generate heat**.

Limiting VOC emissions

The **Volatile Organic Compounds** (VOCs) involved in rubber processing are associated with the evaporation of solvents. To reduce our emissions of VOCs, we have invested in technologies that enable us to cut back on the use of these solvents. This programme was launched in order to meet and exceed the requirements of the relevant European Directive (1999/13/EC). It has enabled Bridgestone Europe's plants to **limit VOC** emissions to an average of **2.2 kg** per ton of tyres in 2010.

Minimising the warehousing of chemicals

Our tyre plants have successfully implemented a **storage optimisation programme** for a range of chemicals targeted by EU regulations. EU Directive 2003/105/EC calls for stringent accident prevention and control measures for factories storing certain levels of these chemicals, setting even tighter limits than earlier EU legislation. It provided additional momentum to Bridgestone Europe's ongoing drive to ensure the **safety** of its staff, its customers and its global neighbours.





A tyre's rolling resistance determines its carbon footprint.

Advanced technologies for eco-friendly tyre use

How can a tyre help to reduce fuel consumption?

There is far more to a tyre than meets the eye. Every component, every design feature, every step of the manufacturing process is likely to affect the **performance** and the **characteristics** of the final product. Our detailed understanding of these diverse aspects and of their complex interactions enables us to engineer tyres for specific purposes and requirements.

Through a combination of advanced design features...

The contribution to **vehicle fuel efficiency** is a key consideration for all our tyres. This parameter is also directly linked to **rolling resistance**, the phenomenon by which the deformation of a rotating tyre leads to heat build-up in the compound, and thus to **a loss of energy. The higher the rolling resistance, the more energy is needed to rotate the tyre.**

Bridgestone's **NanoPro-Tech™** technology represents a breakthrough in tyre design. It optimises the distribution of fillers in the compound, **reducing the friction** of the molecules and the associated **energy losses**. As an added bonus, it also significantly improves **wet grip**. It is the latest in a succession of technological advances that enable us to supply products designed to keep our customers safe while reducing their petrol bills.

Our environmental commitment | Our environmental performance | Our environmental initiatives



Proper tyre maintenance is crucial.



The Ecopia range combines safety and fuel efficiency.



...that translate into low rolling resistance

Reduced rolling resistance means reduced vehicle fuel consumption, all other aspects being equal. It is, however, just **one of many factors** involved. Others, such as vehicle aerodynamics, largely depend on the design of the car. Many more relate to operating parameters, such as vehicle and tyre maintenance standards, driving style and a range of variables which include speed, route and load, as well as weather and road surface.

Among the long list of parameters that affect fuel efficiency, many are within the **consumer's direct control**. Simple gestures, such as **keeping tyres properly inflated** and adopting an **economical driving style**, enable motorists to save on fuel. They also contribute to greater road safety and help to protect the environment.

Towards a greener future with Bridgestone's Ecopia tyres

Bridgestone's flagship brand for cleaner transport takes motorists one step closer to "ecological utopia". **Ecopia** tyres combine advanced features such as innovative compound technology and optimised tread patterns to help to **reduce vehicle emissions**, while offering the **high-level safety** of our premium tyres.

With the **Ecopia range**, Bridgestone has been at the forefront of environmentally aware innovation for many years. Ecopia tyres were first used in electric cars in Japan **in 1991**. Building on this promising start, they made their mark in Europe in 1999 when the Ecopia B381 was fitted to the Volkswagen Lupo 3L, which was widely considered to be the most eco-friendly car of its time. Ecopia tyres for passenger cars have been available in **Europe** since 2009.

ECOPIA

ECOPIA. Reduce your

Products for passenger cars



Turanza ER300 Ecopia

Our **Turanza** range is optimised to provide a **smooth drive** with maximum **comfort** on long journeys. Motorists opting for Turanza tyres with the Ecopia mark benefit from all the advantages of a high-performance tyre constructed for complete control, superior driving comfort and optimal fuel efficiency.

We introduced this premium range in April 2009 to meet **industry demand for low rolling resistance** combined with outstanding safety performance. It has since been fitted to several top-end touring car models as **original equipment**.



Ecopia EP150

The **Ecopia EP150 tyre**, launched in late 2009, was formulated for **small and medium-sized cars**. With an advanced **NanoPro-Tech™** compound, this model provides much **lower rolling resistance** than other Bridgestone tyres of similar dimensions - **without sacrificing safety**.

As a result, compared to other Bridgestone tyres of the same dimension, it is **around 3% more fuel efficient**, enabling car owners to cut carbon emissions and reduce their environmental footprint. The precise gain in fuel efficiency depends on a range of factors, including vehicle type and driving cycle.

Full information on Ecopia tyres is available at: www.ecopia.eu



Ecopia: Eco-friendly tyres for cars, trucks and buses

[Our environmental commitment](#) | [Our environmental performance](#) | [Our environmental initiatives](#)



ecological tyre print.

Products for trucks and buses

Fuel represents approximately **21%** of commercial fleet **operating costs** in Europe. It is a much heavier expense than the acquisition of tyres, which averages at **2%**. A tyre with **low rolling resistance** and a **long service life** can help fleet operators to **cut** their fleet's **carbon emissions** considerably. It also enables them to make substantial **savings**.

Bridgestone Ecopia tyres are specifically designed for reduced ecological impact, and they are now also available for trucks and buses in Europe. Unveiled at the IAA motor show in Hanover in September 2010, the new product line-up marks a milestone for our European operations. It features **5 patterns: for steer use R249 Ecopia and R249 EVO Ecopia, for drive use M749 Ecopia and Greatec M709 Ecopia, and for trailer use R109 Ecopia**. Overall, 20 sizes are available for the above 5 new tyres and 6 sizes for the 2 retread patterns, M749 Ecopia and R109 Ecopia.

The range draws on **innovative compound technology** and advanced design features to provide customers with solutions that will enable them to reduce their operating costs. And, to assist customers who would like our help to ensure that their Ecopia tyres will perform optimally throughout their total tyre life, we have developed a **product-and-service package** including extensive **tyre maintenance** and **wear-life support**.

Fuel efficient

Major reductions in rolling resistance were achieved thanks to a cap and sidewall **compound**. The use of **NanoPro-Tech™** technology, **Low Energy Patterns** and a **Slim Bead design** further enhances energy efficiency for several models in the Ecopia range.

Reliable

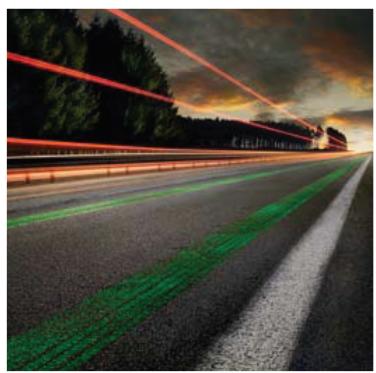
We don't compromise on safety and performances. The superior grip, precise handling and outstanding braking performances of Ecopia tyres are similar to those of Bridgestone's previous line-up.

Durable

All Bridgestone products are built to last, and the Ecopia range features the same durability. Advanced design features **boost the longevity** of the casing, pre-empt irregular wear or facilitate stone ejection. The durability of our tyres increases the scope for eventual **retreading**, a further contribution to **eco-friendlier transport**.

Quiet

Tyres engineered for a healthier environment will also reflect efforts to **control rolling noise**. Specialised features such as groove fences help to keep the noise levels down, both inside and outside the vehicle.



M749 Ecopia

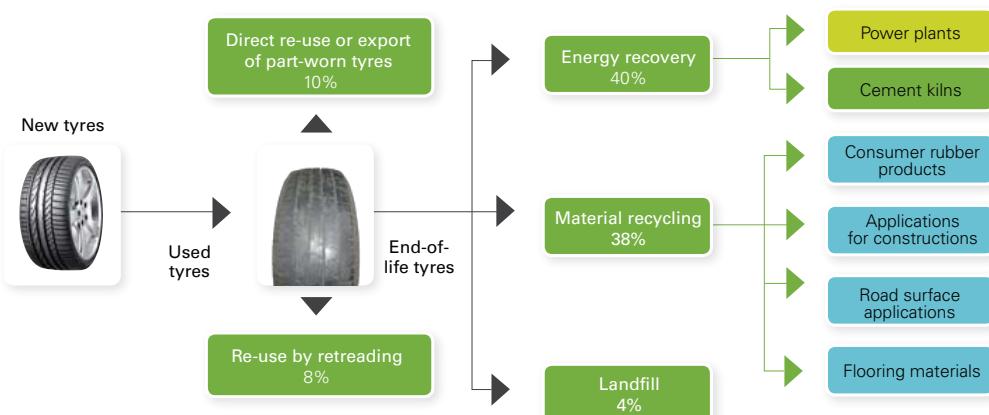


R249 Ecopia



New uses for old tyres

Old tyres are a **valuable resource**. Some may still be fit for service or suitable for retreading. Others may no longer be roadworthy, but many of their components can be reclaimed for **other applications**. Alternatively, they can be used as **fuel** to produce power or for other applications.



Source: ETRMA 2010 data (EU27+NO+CH, issued July 2011) - www.etrma.org

Retreading: unleash the full potential of your tyre

Often, all a worn-out tyre needs is a **fresh tread**. Retreading, the process by which **new treads are vulcanised to old tyres**, enables manufacturers to recondition serviceable tyres and to give them a **second or even a third life**.

Just like new tyres, retread tyres are manufactured to **high standards**; they are **reliable** and provide similar performances. Retreading already provides 40% of the tyres fitted in the European transport market, and nearly all of the aircraft tyres used by the major airlines. It is a cornerstone of our total fleet management solutions and greatly helps to drive down the costs per kilometre by extending total tyre life.

Retreading also represents a step towards **greater sustainability**. The process requires no **more than a third of the oil and of the energy needed to manufacture a new tyre**. It also **extends the service life of the tyre**, reducing the need for recycling or final disposal.

Quality matters

At Bridgestone, we approach retreading with the same passion for excellence as the design and manufacturing of new tyres. We sell retreaded truck and bus tyres under the **Bridgestone** and **Bandag brand names**, and we use premium compound and leading-edge process technology to ensure that our retreads closely replicate the features and performances of our new tyres. Tyres, retreaded or new, should **never compromise on quality**.

BRIDGESTONE



Our environmental commitment | Our environmental performance | Our environmental initiatives



Energy recovery

Tyres are used as a **low-cost alternative fuel** for cement plant furnaces, thermal power stations and incineration units.

Material recycling

Whole tyres are primarily used in **civil engineering** applications such as coastal protection, erosion barriers, artificial reefs or slope stabilisation, road embankments, sound barriers and insulation.

Shredded tyres are notably used as **foundation for roads and railways**, as a draining material replacement for sand and gravels, for landfill construction and embankments, as backfill for walls and bridges, and as subgrade insulation for roads.

Crumb and powdered rubber are used to manufacture moulded objects, **sports facility** and games area flooring, flexible parts for the car industry, noise barriers, road signs and accessories, roofing materials and camping equipment, for example. They can also improve road surfaces, where they can help to reduce driving noise and aquaplaning risks and extend service life.

Landfill

Landfill disposal of tyres having a diameter of **less than 1.4 m is prohibited** in Europe, both for whole tyres and for shredded tyres. This interdiction was introduced by the European Landfill Directive (1999/31/EC), respectively in July 2003 and July 2006. The proportion of tyres of all diameters sent to landfill in Europe has dropped from **62%** in 1984 to **4%** in 2010.



Retreading, recycling, energy recovery - old tyres can always be put to good use.

Management of end-of-life tyres in the EU

All European Member States have their own way of dealing with end-of-life tyres (ELTs). Approaches vary depending on the country's legal framework, but three types of system prevail:

- 1) **Producer responsibility**: the **tyre producer** collects and organises recovery and recycling;
- 2) **Liberal system**: dealers select an **authorised waste collection company** to deliver ELTs to recovery/recycling;
- 3) **Government responsibility**: the **authorities** organise ELT collection and treatment and finance this system through a tax.

Bridgestone Europe takes an **active** role in ELT management in all countries where it sells tyres. It is a founding member of ELT management joint companies in all countries which assign the responsibility to the producers. Where other systems apply, we promote responsible tyre disposal through local partnerships and industry associations.

Please contact us for more information at: environment@bridgestone.eu or download the European Industry ELT Report at: <http://www.etrma.org>





Our environmental initiatives

Bridgestone's global environmental policy extends well beyond the standard corporate framework. We foster **ecological awareness** within our Group, and we engage with people and organisations around the world to promote the **responsible use** of our products.

Our principle "**One team, one planet**" says it all. We want to play an active role in society, and we want to contribute to a more sustainable world - for the benefit of future generations everywhere.



The power of dialogue

As a company with a worldwide presence, we have many opportunities to interact with local communities on several continents. This enables us to share information about the **environmental aspects** of our industry and to support initiatives at regional, national and international level.

We are, for example, involved in a range of **tyre safety programmes**. Simple tyre care actions can enable drivers to **reduce the risk of accidents and to limit the ecological impact** of their journeys in the process. To help spread the word, we have performed more than **190,000 tyre safety checks on vehicles across Europe since 2005**.

These checks, offered free of charge to motorists at car parks and shopping centres, confirmed the need for urgent action. They revealed that **7 out of 10 inspected vehicles showed tyre pressure or wear problems**.

Under-inflation does not only raise the risk of serious accidents, it also **increases rolling resistance and erodes fuel efficiency**. Based on our findings in 2010, we estimate that **inadequate tyre care in Western Europe wastes EUR 2.8 billion in fuel and adds 4.8 million tons of CO₂ per year**.

Our tyre check activities are performed by volunteers, reflecting our staff's dedication to dialogue with the wider community. We rely on our local Bridgestone teams to translate our environmental commitment into action.

Our factory in Burgos has set up a particularly comprehensive programme. This involves extensive in-house initiatives as well as various high-profile community activities, including:

- ↑ Burgos **Environment Month**, launched in 2008 with a full course of events, conferences and debates exploring sustainability issues;
- ↑ The **Environment Semester**, initiated by Bridgestone in cooperation with other companies, local authorities and academic institutions to promote recreational and cultural activities as well as cross-company visits;
- ↑ Writing and photography **contests** in the context of Bridgestone's campaign to save water and energy;
- ↑ A **tree-planting project**;
- ↑ A bicycle ride which has quickly matured into an annual tradition dedicated to sustainable urban transport.

Marta Pérez

Environment Coordinator,
Burgos Plant



"In Burgos, we launched various activities to raise awareness of environmental issues among our staff. But we wanted to take this programme to another level by opening it up to the local community. **We think it is really important to involve everybody, because we can't create a common environmental project, involving the region's companies, the university and local government etc. unless we do."**

"Awareness does make a difference. In our plant, we are always working on preserving natural resources such as water and energy. Last year, for example, we set a target to reduce water consumption. The results were even better than expected, due to a combination of employee involvement and infrastructure investments. **We reduced consumption by 50%.**"

"I hope we will be able to take these activities another step ahead every year. They are really interesting and useful for our colleagues and for the community!"

Contacts

If you wish to contact Bridgestone Europe for information, comments or suggestions about its environmental activities, please send your messages to:

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Depotec Briefing Paper re Depolymerisation Technology

[2011]

Depolymerisation Technology for Rubber with Energy Optimisation to Produce Carbon Products



NIA Meeting
[December 8th]

LIFE10 ENV/IE/000695 DEPOTEC

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1



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1.0 Introduction

The rapid increase worldwide in the number of transport vehicles has been accompanied by a major generation of waste tyres. In Europe around 3.2 million metric tonnes of used tyres are generated annually [1]. The European Union has legislated a series of regulations for Waste Tyre Management including the European Commission's Landfill Directive (1999/31/EC) [2] which banned the landfill of certain whole and shredded tyres effective July 2003 and July 2006 [3]. The European End of Life Directive (2000/53/EC) [4] sets a target of 95 % recovery by 2015. The main objective of Directive (2000/53/EC) is the prevention of waste from vehicles, in addition to, the reuse, recycling and recovery of end of life vehicle components so as to reduce the disposal of waste. Although these two directives have had and continue to have an impact on how we manage end of life tyre waste, with the development of strategic programmes such as the producer responsibility initiative set up by the European Tyre Manufacturers in over 14 countries [1], our over reliance on rubber derived products, particularly tyres, still continues to have a significant effect on the environment.

2.0 DEPOTEC Objectives

The DEPOTEC project is funded by the LIFE+ Program which is the EU's funding instrument for the environment. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects with European added value. The main objectives of the DEPOTEC project are to:

- 1) Identify the barriers which have affected the development of 'Depolymerisation' as a 'Best Known Method' for end of Life Tyres
- 2) Understand the Economic Roadblocks wrt previous exploitation of Depolymerisation Technologies for End of Life Tyres
- 3) Incorporate 'Best Practise' into end of life tyre management, depolymerisation process development and design, energy optimization methodologies, planning and construction of the pilot plant.
- 4) Identification of the most effective testing procedures for gauging the quality of the materials produced from ELTs.
- 5) Develop new markets for ELT products with a focus on Life Cycle Analysis and Value Added Products.

3.0 What is an End of Life Tyre (ELT)?

End-of-Life Tyres (ELT) are defined as tyres which can no longer be used on vehicles including passenger cars, trucks, airplanes and motorcycle tyres (after retreading or regrooving). ELTs are classified as non-hazardous waste (75/442/EEC amended by Directive 91/156/EC) [5]. They can be used in both material recovery (shredding, grinding, depolymerisation) and energy recovery (cement kiln, power plants and electric arc furnaces) (Figure 1 and Figure 2).



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4.0 Current Markets for End Of Life Tyres & Technologies

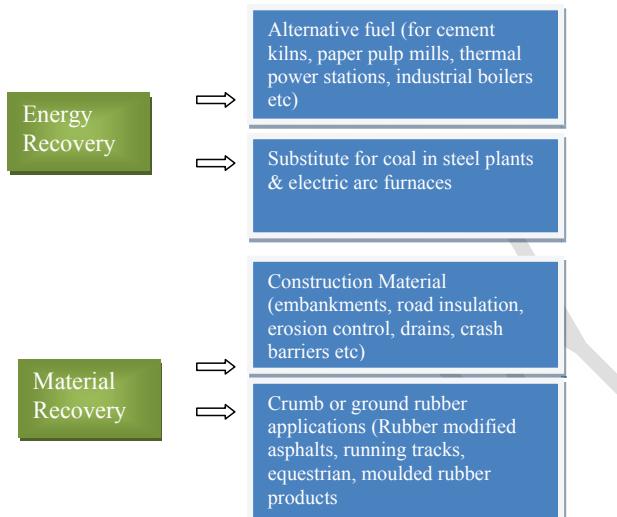


Figure 1: Energy Recovery and Material Recovery Markets for ELTs

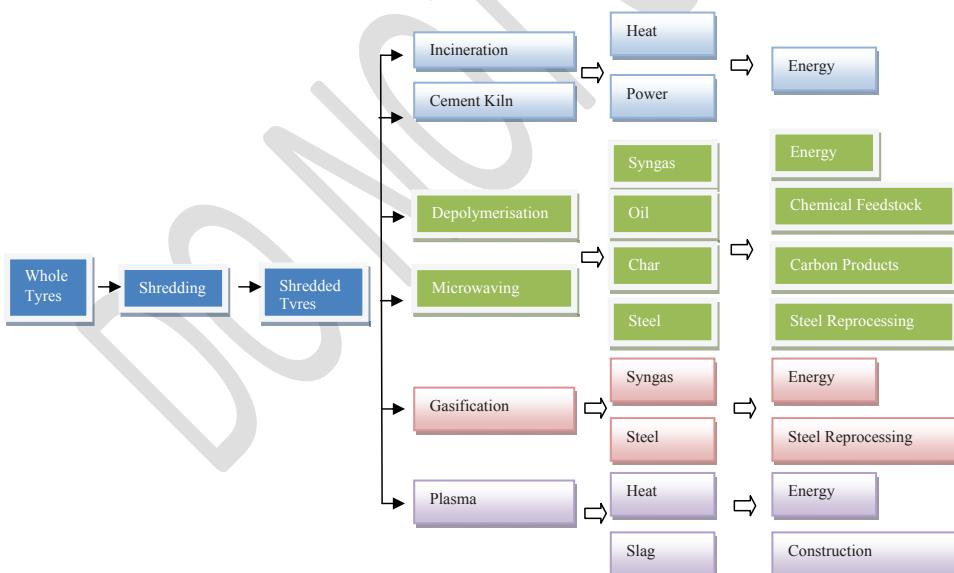


Figure 2. Depolymerisation Vs Alternative Energy Recovery Systems

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5.0 Depolymerisation Process Characteristics

Depolymerisation is the chemical conversion or breakdown of organic compounds by heating in the absence of oxygen. The reaction is not combustive and requires the input of a large amount of energy. Whole or shredded tyres are depolymerised using a series of heated reactors to isolate and reclaim black carbon char, steel, oils and gases. Estimated yields of the end-products are variable based on the process conditions, but are generally: 33% char, 35% oil, 12% metal, 20% gas. The non-condensable gas is used to heat/fuel the depolymerisation reactor. The oil can be used to fuel the furnaces. Char and metal can be recovered as activated carbon and steel respectively. Economic feasibility, yield, and end-product quality have limited the application of this technology.

Over the last two decades, numerous depolymerisation facilities have been built at pilot and demonstration scale. A large number of process developers have recognized the potential in the tyre recycling market. Depolymerisation technology is not new; it has been in operation since the 1970's. DEPOTEC have knowledge of over 30 companies/institutions that have claimed to have a depolymerisation and/or gasification technology for the processing of waste tyres or tyre crumbs. Most of the companies never got past conceptual stage, a few ran pilots and even less started commercial plants but most have failed. The reason that most of the failed companies have cited with respect to their demise is economics, that is the fact they are not commercially viable. Up to this point the depolymerisation of end of life tyres has not been proven to be economical [6].

Depolymerisation is an endothermic process so it requires energy input. One of the main objectives of this project is to design innovative ways to provide this energy input to enable the thermal decomposition of the feed material without the addition of Oxygen. According to published studies an economically positive balance is obtained only when the depolymerisation processes go beyond primary products and integrate stages for obtaining higher value added products, such as high quality carbon black and active carbon suitable for trapping chemical compounds such as phenols and methylene blue etc. The main factors affecting the use of ELTs in Depolymerisation are outlined below (Figure 3).

- . Depolymerisation Technology
- . Technology Economics
- . Reliability of Supply
- . The ELT Management Structure
- . Standards and Restrictions on ELT Use and Disposal
- . Infrastructure available to allow reuse

Figure 3. Factors affecting the use of ELTs in Depolymerisation



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6.0 DEPOTEC Depolymerisation Process

The depolymerisation technology being developed during the DEPOTEC project has the potential to convert a waste stream like tyres into valuable products (Figure 4). The typical feedstocks for activated carbon and carbon black are either coal or petroleum. The proposed technology would eliminate the need to deplete these resources. The process offers a high degree of flexibility wrt which product could be preferentially made depending on market conditions. The speed of the process and the rate of heat transfer influence both the product distribution (oil, gas and solid) and the characteristics of the end product.

Generally, the char does not possess properties of sufficiently high quality to be reused as raw materials, owing to the complexity of the mixtures and the presence of contaminants such as ash, sulphur containing by-products and oily condensates. Depolymerisation char however is still one of the most important products of the tyre depolymerisation process. The physical properties (porosity, particle and aggregate size, surface area), chemical properties (elemental analysis, ash content and composition) and aqueous adsorption properties (for metals, phenols and methylene blue) of the depolymerisation char are crucial when considering the economic value of the depolymerisation process for tyres. Upgrading is a necessary step, which is needed to justify the viability of the depolymerisation process. The product gases from the depolymerisation process can be used for energy production. The condensate oil produced could also be potentially reintroduced into the process as a fuel to generate heat to drive the decomposition process. Adding value to the products from this process is a key deliverable of the DEPOTEC project.

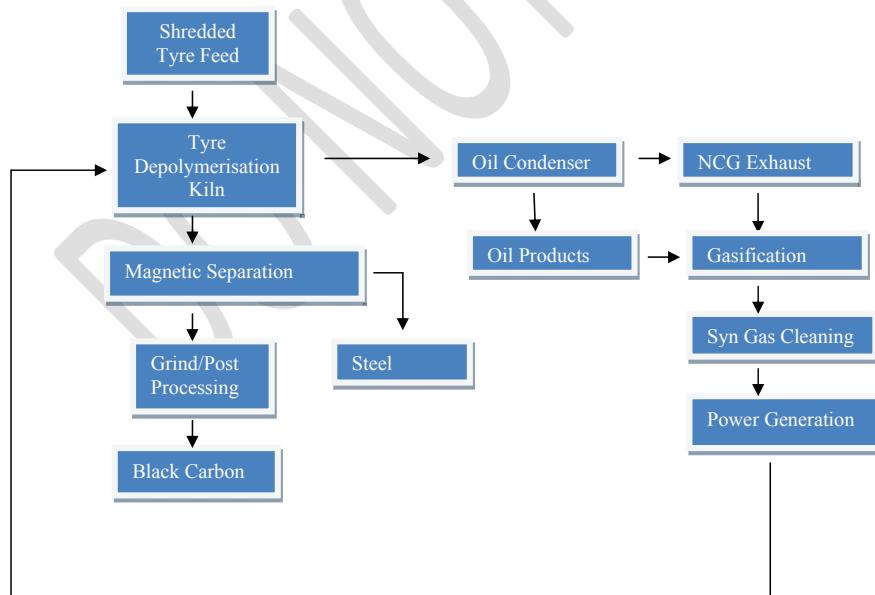


Figure 4. Depolymerisation Process Flow

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7.0 Factors Affecting the Development of the DEPOTEC Depolymerisation Process

7.1 Economics

The factors (Figure 5) influencing the development of a viable Depolymerisation Process for Tyres are detailed below. Each of these will be examined individually and collectively during the course of the DEPOTEC project.

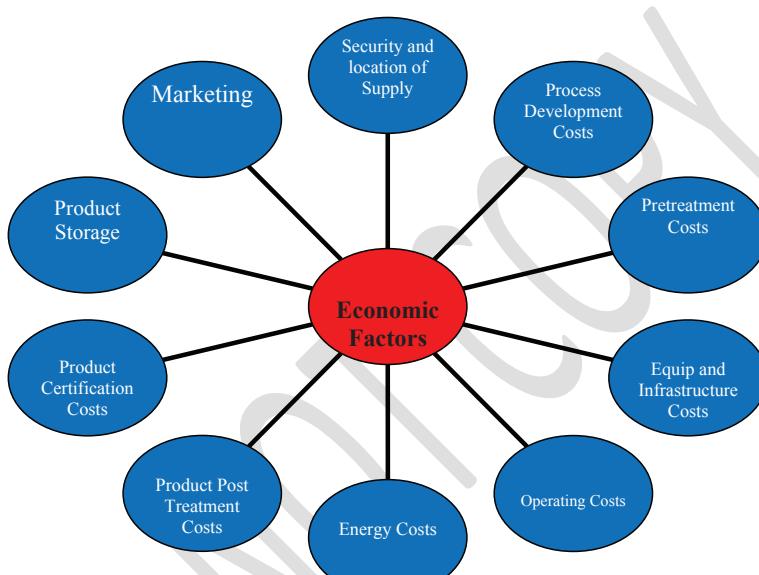


Figure 5. Factors Affecting the Economics of Depolymerisation

7.2 Legislation & Waste Management Enforcement

Legislation can affect both the cost and the long term viability of the depolymerisation process in addition to the environmental and economic costs associated with the overall management of tyre waste

- (i) Legislation should ensure that ELTs can only be disposed of through authorised/certified disposal routes [7].
- (ii) Legislation should govern the operation of ELT transporters, sorters storage facilities and processing facilities.
- (iii) Legislation should recognise ELT derived Products as alternative energy sources or secondary raw materials with respect to criteria identified and

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certified through regulations. The introduction of standards for ELT derived products is key for their recognition as an alternative energy source or secondary raw material. Ultimately legislation will impact economic and environmental costs.

- (iv) The right enforcement procedures must also be put in place to make sure that the legislation is respected.

7.3 Life Cycle Analysis

LCA is a methodology used to identify the environmental impacts related to a product, service or system from a holistic point of view. It incorporates all known potential environmental impacts and follows the product, service or system from "cradle to grave". It includes all known processes in the stages of extraction of raw materials, production, use, and disposal. Life Cycle Analysis has become an integral part of many strategies and regulations within waste management. Some of the components of Life Cycle Analysis (Figure 6 and Figure 7) include:

- (i) Total primary energy consumption
- (ii) Consumption of non renewable sources
- (iii) Water Consumption
- (iv) Emissions of green house gas of fossil fuel origin
- (v) Acidifying Gas Emissions

During the DEPOTEC project, extensive work will be carried out on the Life Cycle Assessment of Depolymerisation of Waste Tyres. Comparative Analysis will be completed on the Depolymerisation Option Vs Existing Methods (Rubber Crumb Civil Engineering Applications) and Emerging Applications (Rubberised Asphalt). The Life cycle Stages of a process are shown in Figure 6.

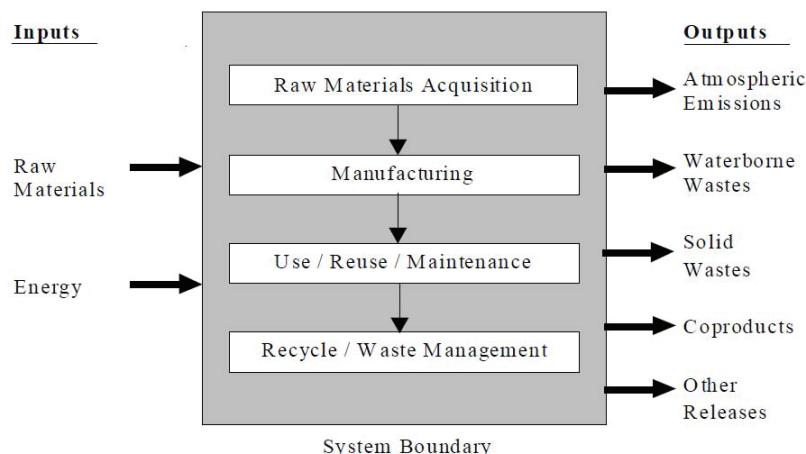


Figure 6: Life Cycle Stages [8]

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The Life Cycle Analysis process is a systematic, phased approach and consists of four components:

1. Goal Definition and Scoping - Define and describe the product, process or activity and the context in which the assessment is going to be made and identify the boundaries and environmental effects that will be reviewed for the assessment.
2. Inventory Analysis - Identify and quantify energy, water and materials usage and environmental releases (e.g., air emissions, solid waste disposal, waste water discharges).
3. Impact Assessment - Assess the potential human and ecological effects of energy, water, and material usage and the environmental releases identified in the inventory analysis.
4. Interpretation - Evaluate the results of the inventory analysis and impact assessment to select the preferred product, process or service. A clear understanding of the uncertainty and the assumptions used to generate the results is crucial.

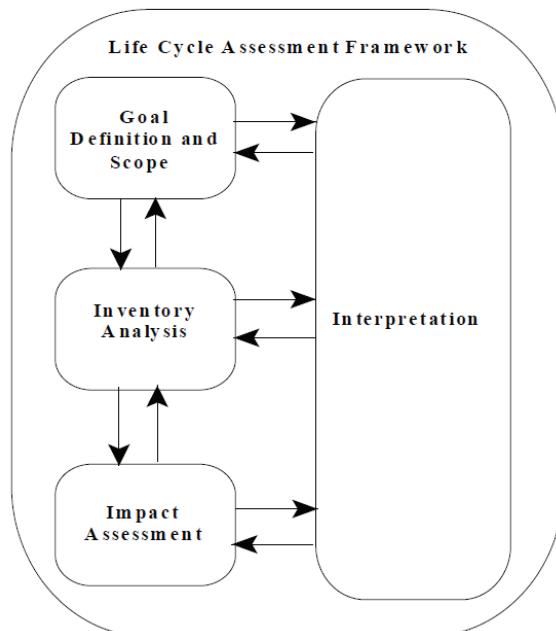


Figure 7: Life Cycle Analysis Framework [9]

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7.4 End Market Development

The development of long term viable end use markets for ELTs is key to the success of an ELT Program. There are many factors that need to be assessed when developing end use markets for ELTs:

- (i) What does the supply chain look like for ELTs. Are there sufficient quantities to support a new market?
- (ii) Is there an existing demand for current ELT derived products?
- (iii) Are their regulations in place that will allow the development of the proposed market wrt ELT processing technology, infrastructure and market development?
- (iv) Is the market viable long term wrt the economics of the entire process?

7.5 Product Certification

One of the key objectives of the DEPOTEC project is to develop common specifications for the material produced from end of life tyres. This will include all aspects of production, assessment, and utilisation in order to reduce the obstacles to inter-regional and international trade.

Currently the European Tyre Recycling Association is working to improve the standards for the products produced from end of life tyres. DEPOTEC will work directly with the European Tyre Recycling Association to create the mechanisms for approval and evaluation of these products. This information will be used to not only develop standardised methods but also provide recommendations for the development of policy and legislation.

The CEN/TS 14243:2010 Technical Specification [10] provides definitions for the categories of materials produced from ELTs based on their dimension or impurities. It also provides test methods for the determination of the dimension of the materials produced from all categories of ELTs at all steps of the treatment process as well as for the determination of impurities. The test methods include sample collection and the preparation of a representative sample based on a sampling plan for the purpose of determining dimensions and impurities. The CEN does not cover the operational performance or fitness for use of the materials which are deemed to be a function of agreement between the producer and the customer.

PAS 107 [11] was prepared by the British Standards Institution (BSI) in collaboration with WRAP (Waste and Resources Action Programme). It sets out a formal material specification system and defines minimum requirements for the initial storage, production and final storage of size reduced, tyre derived rubber materials (Figure 8 and Figure 9). PAS 107 excludes the use of whole or baled tyres in end use applications. PAS 107 does not cover the by-products of the size reduced process, namely steel and textile fibre. PAS 107 also excludes processes such as depolymerisation or microwave treatment.



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Category code	Material	Size range (maximum dimension) mm		Other characteristics
		Min	Max	
Rough cuts	RX	300	None	May contain exposed wire and textiles ¹⁾
Clean cuts	CX	300	None	May contain up to 5 % by length exposed wire and textiles ²⁾
Rough cut shred	RS	50	300	May contain exposed wire and textiles
Clean cut shred	CS	50	300	May contain up to 5 % by length exposed wire and textiles ²⁾
Rough cut chips	RC	10	50	May contain exposed wire and textiles
Clean cut chips	CC	10	50	No exposed wire. May contain up to 5% by length exposed textiles ²⁾
Granulate	G	1.0	10	Free from exposed wire and textiles
Powder	P	0	1.0	Free from exposed wire and textiles
Fine powder	FP	0	0.5	Free from exposed wire and textiles

1) All exposed wire and textiles shall be firmly attached to the body of the rubber fragments.

?) Upon visual inspection

Figure 8. Material Category Code [11]

Category					Application
Cuts	Shred	Chips	Granulate	Powder	
✓	✓	✓			Co-combustion with other fuels in the manufacture of cement and lime products
✓	✓	✓			Generation of energy by incineration
		✓			Clean cut, as the surface for equestrian ménages and pathways
	✓	✓			Leachate drainage layer in the construction of landfill cells
	✓	✓	✓		Aggregate replacement in civil engineering projects
	✓	✓	✓	✓	Resin-bound as a shock absorbing layer for sports tracks and children's playgrounds
		✓	✓		Moulded products such as tiles, street furniture and level crossing platforms
		✓			Various horticultural applications such as mulching and soil amelioration
		✓			As a filler, with sand, in artificial turf for sports pitches
		✓	✓		In rubber modified bitumen for road surfacing and repair
		✓	✓		Carpet underlay and floor tiles
		✓			Aggregate replacement in construction products such as building blocks
				✓	Industrial adhesives and sealants

Figure 9. Secondary End Markets to which PAS 107 applies [11]



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8.0 APPENDIX

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A.1 Composition of a Tyre

A passenger tyre typically contains 30 types of synthetic rubber, eight types of natural rubber, eight types of carbon black, steel cord, polyester, nylon, steel bead wire, silica and 40 types of chemicals, waxes, oils and pigments. They contain approximately 85% hydrocarbon, 10-15% iron (in the bead wire and steel belts) and a variety of chemical components [12].

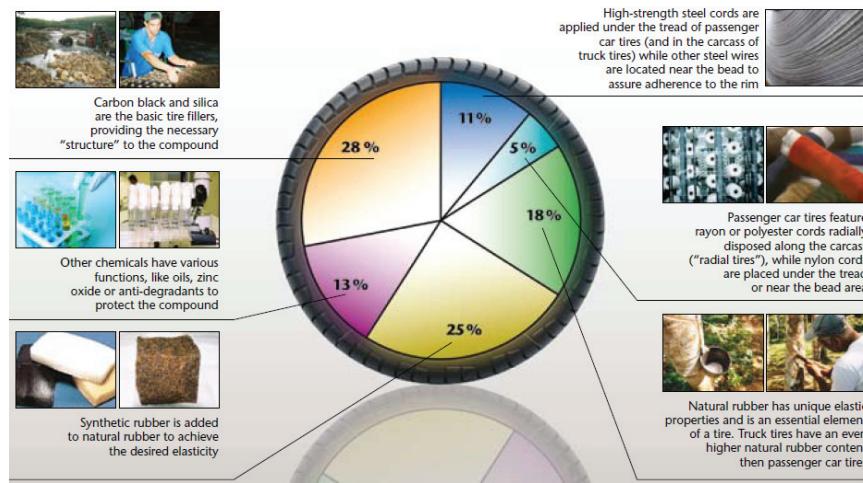


Figure A.1: Composition of a Tyre [12]

A.2 Energy Content and CO₂ Emissions from fuels

Tyres have a high energy content and have an equal or better source of energy than other fuels. Tyre Derived Fuels (TDFs) emissions when burned in a controlled environment are no greater than those produced by other fuels [12, 13].

Fuel	Energy GJ/t	Emissions	
		KgCO ₂ /t	KgCO ₂ /GJ
Tyres	32.0	2,270	85
Coal	27.0	2,430	90
Pet Coke	32.4	3,240	100
Diesel Oil	46.0	3,220	70
Natural Gas	39.0	1,989	51
Wood	10.2	1,122	110

Figure A.2. Energy Content and CO₂ Emissions [12]

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A.3 Models for ELT Management in Europe

Tax System

- The producer/importer is subject to a government tax
- The government is responsible for the End of Life Tyre management and appoints and finances operators. This includes collectors and recyclers.

Free Market System

- Each operator is responsible for fulfilling waste legislation obligations
- Each operator within the ELT management chain operates on the basis of market Prices

Producer Responsibility

- Producers/importers apply a ‘contribution’ on the solid product.
- The ELT management is managed through a no profit producers/importers fund or organization which reports to the government.
- Fourteen ELT management organizations are operating throughout Europe
- The chain is coordinated by the ELT companies, from collection to recovery or recycling, with the support of a reliable and transparent traceability or auditing system.



Figure A.3. Management Systems for Waste Tyres [12]

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A.4 SIGNUS CASE STUDY

As part of the DEPOTEC project, extensive studies will be carried out on the Models currently in existence across Europe for the Management of Waste Tyres.

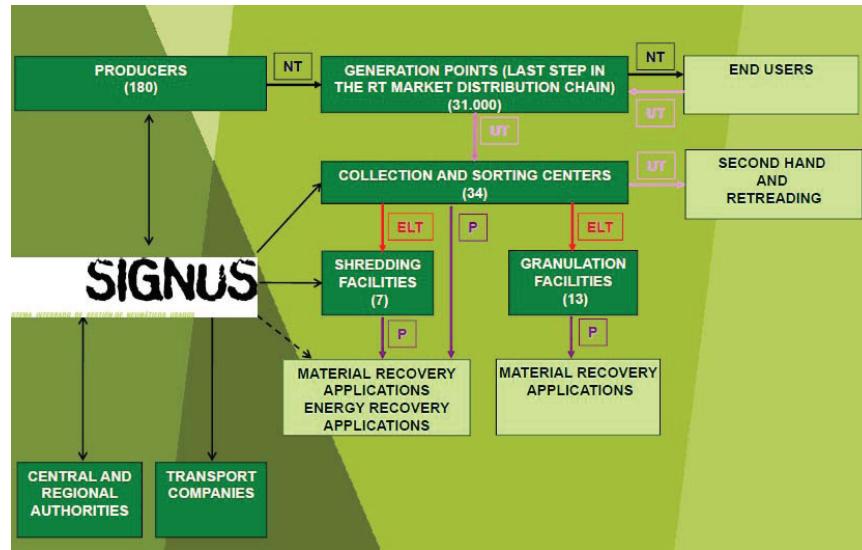


Figure A.4. SIGNUS Business Model [14]

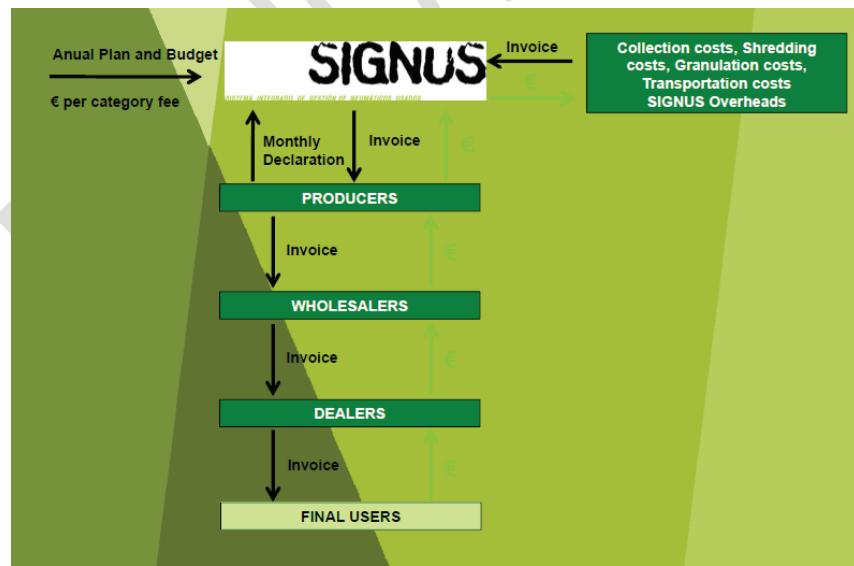


Figure A.5. SIGNUS Financial Flow [14]

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SIGNUS fees (Ecovalor)		2007	2008	2009	2010
Cat	All tires Ø<1400	€/un.	€/un.	€/un.	€/un.
A	Motorcycles and assimilated	1,28	1,14	1,01	1,01
B	Passenger cars	1,98	1,77	1,57	1,57
C	4x4, Vans, Agricultural I, Industrial I	3,94	3,52	3,27	3,27
D	Lorries, Buses, Agricultural II, Industrial II	12,48	11,12	10,62	10,62
E	Agricultural III, Industrial III	22,54	20,14	19,50	19,50
F	Agricultural IV, Industrial IV	40,14	35,88	34,80	34,80

Figure A.6. SIGNUS Fees Evolution [15]

The figure below illustrates the main recycling and recovery categories for SIGNUS-managed ELTs. Rubber granulate continues to be the most important category although the figure was down slightly with respect to 2009.

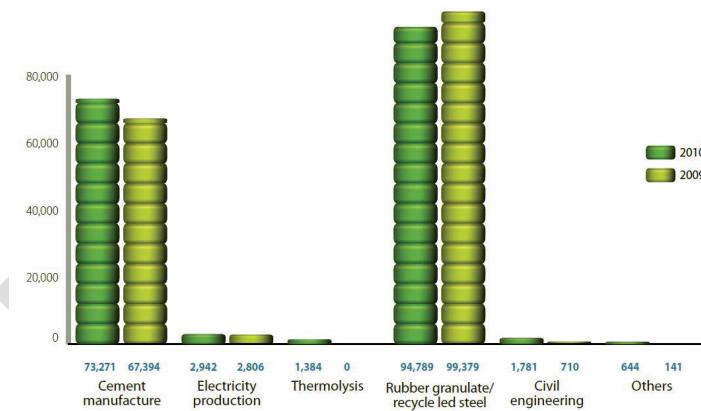


Figure A.7. Recycling and Recovery 2010-2009 [15]

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A.5 Quality Protocol

The Quality Protocol is applicable in both England and Wales. It sets out end of waste criteria for the production and use of Tyre Derived Products [16].

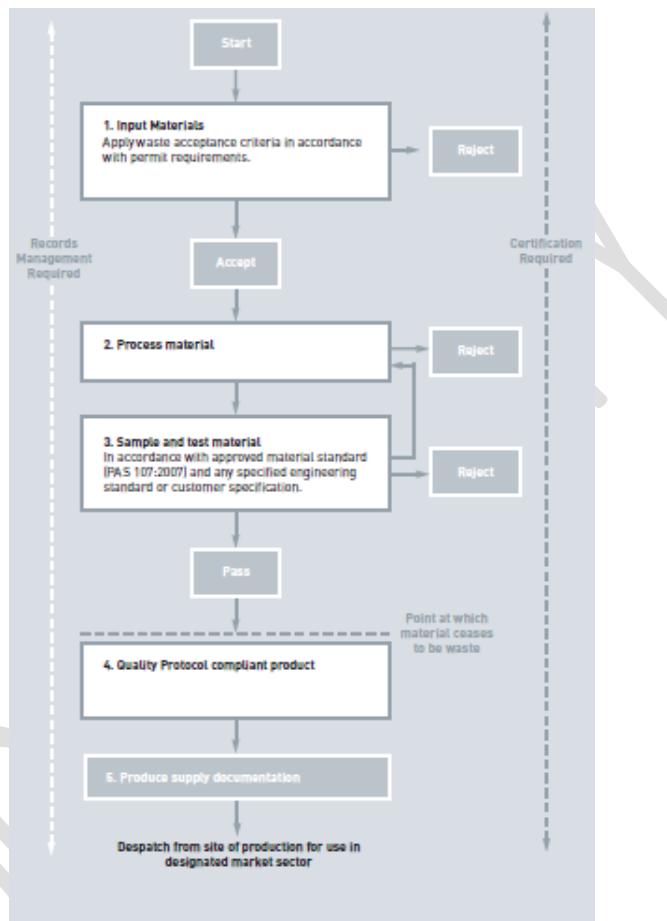


Figure A.8. Quality Protocol

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UCC

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The sole responsibility for the content of this report lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the LIFE+ Program nor the European Commission is responsible for any use that may be made of the information contained therein.

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DEPOTEC

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Sunday Life Article re Illegal Tyre Disposal

SUNDAY LIFE

Sun 04 December 2011 Page 10&11

1 GFC

NORTHERN TYRELAND

WE EXPOSE ILLEGAL DUMPING SITE IN THE SHADOW OF DONEGAL

MOUNTAINS

BURIED beneath a Donegal beauty spot... the dirty secret of Ulster's £5M-a-year used tyre trade.

A special Sunday Life investigation today uncovers how a Co Donegal bog is being used as Northern Ireland's dumping ground.

As Stormont's environment committee prepares to deliver a report on how we dispose of used tyres, we expose how hundreds of tonnes of tyres from across the border have been hidden in the north Donegal countryside.

Donegal County Council last week launched a probe into the remote site, after we alerted them to our shock findings about the cross-border 'Blot on the Landscape'.

The tyres buried in a bog in the shadow of Grinlieve mountain near Carndonagh, had come from a yard 30 miles away near Derry, run by Ken Ferguson Tyres.

When Sunday Life quizzed Ferguson he denied illegally dumping tyres and instead blamed his staff, saying they were selling them behind his back.

Guarded by Rottweilers, and hidden behind 8ft tall iron gates in the countryside above the city, Ferguson's rented yard is operated without planning permission or a licence.

During just two days last week we watched as Ferguson's lorries were sent across Northern Ireland picking up used tyres from garages across the province.

Motorists will have paid between £2 and £12 to have their used tyres disposed of legally.

One 20ft lorry travelled 80 miles before making the first of two stop-offs to collect used tyres — gathering a load of about 200 scrap tyres from a yard on the Colindale Road outside Belfast.



After a 30 minute stop off to load up, the lorry was on the move again, back towards Belfast and into the Boucher estate, where McCullagh Tyres had up to 400 tyres piled against a wall to be collected. The Belfast firms had no idea the tyres would be dumped illegally.

We watched as the driver slung the tyres one by one into the back of the lorry.

After just two stops the lorry returned to its Derry base where staff quickly arrived to help unload the loose tyres. The same vehicle was then re-filled with bales of tyres that were ready to be moved on and left overnight.

The next day the lorry made two drops at its destination — the hills of Donegal.

We watched as it returned to the yard after its first load was dispatched and the 20 footer was loaded up again with about another five tonnes of tyres (about 600).

Its driver stopped briefly at a house in Derry before heading back onto the Culmore Road and across the border, passing a Garda patrol car on the way.

It wound its way to Quigley's Point before turning towards Carndonagh. It then squeezed up a narrow country road (L1381) and up an even tighter lane, stopping outside a large white bungalow, surrounded by wild bogland.

There, the driver and another man unload the

lorry — white specialist equipment to move the tyres across the terrain before they are buried waits on standby. Our shock photos show where the poisonous rubber tyres end up - covered with dumped rubble and buried in the middle of this Donegal beauty spot.

Around the surrounding land there is a curious combination of wild scrub and bogland and perfect, flat, green fields - more suited to Anfield or Old Trafford than the wilds of Donegal.

Under these perfect greens, it's believed that hundreds of thousands of illegally dumped tyres are hidden, slowly poisoning the soil.

Donegal County Council — following our tip off — has investigated the illegally buried tyres and is launching enforcement action against the owner of the land. And it is set to tell the farmer that he has to dig up all the tyres he has buried on his land and dispose of them legally.

It is understood Donegal Council has also been in contact with Ferguson and has told him they want to quiz him about the Donegal site.

Ferguson at first denied that tyres from his yard were being dumped illegally.

"All my tyres go to the mainland," he told us. "And if I dumped them I would actually be losing money, because I sell them on, on the mainland. If my drivers are doing that then I don't know about it I would have to ask them."

"But I am not always there and don't always know what is happening."

We offered to show Ferguson the evidence we had gathered that show what his business is doing, but he declined our offer.

Just 24 hours later Ferguson was back on the phone. This time he told us his driver had "come clean". Ferguson claimed that the driver was sell-

ing his tyres behind his back... to help a farmer build a mountainside road to help him feed his sheep during the winter.

Donegal County council sources confirmed that this would also be illegal.

A DCC spokesman said: "Ken Ferguson currently has a WCP (Waste Carrier's Permit) with Donegal County Council to collect 'End of Life' tyres, however no consent has been given by the council to bury tyres at Carrowblagh.

"Following notification of the problem, we have investigated the complaint and will be taking the appropriate enforcement actions."

Ferguson does not have planning permission for the yard he runs at Corrody Road just outside Derry, but applied through an agent for retrospective planning permission for the rented property at the start of October.

The application cost Ferguson £2,607 and a decision is still pending.

According to correspondence seen by Sunday Life, the Waste Management Licensing Section in response to Ferguson's application wrote that:

SUNDAY LIFE

Sun 04 December 2011 Page 10&11

2 OF 2

NORTHERN TYRELAND

WE EXPOSE ILLEGAL DUMPING SITE IN THE SHADOW OF DONEGAL MOUNTAINS

"All materials entering and leaving the site must comply with Duty of Care Regulations."

Those duties of care include knowing that the tyres are going to be disposed of legally - and breach of the regulations can carry unlimited fines and up to two years in jail if dealt with at a crown court trial.

A Northern Ireland Department of the Environment spokesman said: "Duty of care legislation places a requirement on anyone operating a waste facility, transporting or producing waste to ensure that it is handled legally and that documentary records of waste movements are made and retained."

Information Service

SUNDAY LIFE

Sun 04 December 2011 Page 10&11

Who earns from tyre dumping?

ULSTER motorists are estimated to dispose of 1.7 million car or lorry tyres every year — with motorists charged anything from £2 for a car tyre up to £12 for a lorry tyre each time.

That money is to cover the cost of either recycling or disposing of the worn tyre in an environmentally friendly and legal way.

The tyre dealer will keep a percentage of that and pay the rest to a waste disposal firm — such as KF Tyres — to take the tyres from their site and dispose of them legally.

To remove tyres, the law demands that the company has a waste management licence, and that they must transport and store used tyres on a licensed site.

As he removes the tyres, the disposal firm has to issue a transfer notification, that creates an audit trail to allow the Environment Agency to prevent rogue traders operating.

Industry estimates say that it costs at least 80p per tyre to have it disposed of legally or recycle.

Rogue dealers would save themselves the 'gate fees' for waste disposal facilities by dumping tyres illegally and pocketing the money they have saved on this.

Industry insiders estimate that illegal dumpers could pull in hundreds of thousands every year.

The Assembly's Environment Committee has been investigating tyre disposal since October.

Next March it is expected to produce its report — part of which will deal with how they will get rid of rogue traders who dump tyres illegally.

Committee chairwoman Anne Lo told Sunday Life: "Rogue dealers are taking thousands of used tyres from retailers and then either renting barns from farmers and abandoning them in there or just finding somewhere remote in the country to dump them."

"We need very tight checks on where these tyres are going to stop crooks cashing in by illegal dumping."

Executive Information Service

NIHE Letter re Tyre Disposal on NIHE Land



Director of Housing & Regeneration (A)
Gerry Flynn

2 Adelaide Street
Belfast BT2 8PB

Anna Lo MBE
Chairperson
Committee for the Environment
Room 245
Parliament Buildings
Ballymiscaw
BELFAST BT4 3XX

4 January 2012

Dear M&ho

Tyre Disposal

I refer to your letter dated 15 November 2011 requesting information on the illegal dumping of tyres on Housing Executive land.

Further to earlier correspondence from NIHE, confusion arose over the recording of information relating to illegal dumping and work carried out as part of bonfire management.

The Housing Executive has removed tyres as part of its general clean up after bonfires but does not record this specifically.

The only recorded incident of the removal of tyres as previously reported (i.e. not general bonfire waste material) occurred in our West Belfast District Office In July and August of this year. A total of 500 tyres were removed by a specialist contractor and disposed of at a total cost of £2500 + VAT.

I hope this clarifies matters and apologise for any confusion. I am happy to follow up on any general/specific query the Committee may have.

Yours sincerely


G Flynn
Director of Housing and Regeneration (A)



Telephone 028 9031 8741 Fax 028 9031 8738
TypeTalk no : 18001 03448 920 900 Email: gerry.flynn@nihe.gov.uk



ROI Dept of Environment reply re Used Tyre Inquiry



Comhshaol, Pobal agus Rialtas Áitiúil
Environment, Community and Local Government

12 January, 2012.

Mr. Alex McGarel,
Clerk to the Committee for the Environment,
Northern Ireland Assembly,
Environment Committee Office,
Room 247,
Parliament Buildings,
Belfast,
BT4 3XX.

Dear Mr. McGarel,

I refer to your letter of 19th December 2011 regarding the inquiry into the management of used tyres being undertaken by the Northern Ireland Assembly Committee for the Environment. I note that you have also sent a similar letter to the Environmental Protection Agency (EPA) on this issue. This Department has the overall policy responsibility for waste tyres which the enforcement of the Regulations being a matter for the local authorities concerned and the EPA.

The Waste Management (Tyres and Waste Tyres) Regulations 2007 (S.I. No. 664 of 2007) were introduced in the Republic of Ireland to tackle the inadequacy of information on tyre flows and the management of waste tyres and put in place an improved regulatory framework. The Regulations facilitate the comparison of quantities of waste tyres arising with the amounts placed on the market and tracking the movement of waste tyres from their discarding until they are either reused or processed for recycling. The Regulations impose obligations on persons who supply tyres to the market in the Republic (producers and suppliers) and waste tyre collectors to submit quarterly reports on tyre flows to either their Local Authority or the compliance scheme they are participating in.

There are two approved collective compliance schemes; Tyre Recovery Activity Compliance Scheme (TRACS) and Tyre Waste Management (TWM) which were approved by the Minister for the Environment in 2007 (TRACS) and 2009 (TWM). Both are not-for-profit bodies. Neither scheme provides for mandatory take-back of waste tyres.

I should also inform you that a major review of the Producer Responsibility Initiative schemes in Ireland will be undertaken by this Department this year. This is to ensure that we are well placed to meet our domestic and broader EU recovery and recycling targets over the next ten years. It is envisaged that the overall structure and operations of the two tyre collection schemes will be reviewed as part of the wider review of the Producer

Responsibility Initiative system. The review will also assist in determining whether a system that tracks products from the time they are placed on the market until they reach end of life is effective in keeping waste tyres out of the reach of unauthorised operators, or whether it would be more effective to require producers to take direct responsibility for the environmentally sound management of waste tyres.

The results of the Joint Tyre Survey of the quantity of used tyres generated in Northern Ireland and the Republic of Ireland, together with the conclusions and recommendations of the Producer Responsibility Initiative review will inform the future management of waste tyres generally and, in particular, the illegal disposal of waste tyres.

If I can be of any further assistance to you, please do not hesitate to contact me.

Yours sincerely,

Roger Harrington.

Roger Harrington,
Environment Policy and Awareness,
Newtown Road,
Wexford.
Phone: 00353 53 9117438
E mail: roger.harrington@environ.ie

Newline Waste Solutions Ltd

INNOVATION IN WASTE RECYCLING

Newline Waste Solutions LTD

EXECUTIVE SUMMARY

- Newline Waste Solutions specialise in Pyrolysis of waste tyres
- Pyrolysis is the breakdown of tyres into oil, steel and carbon black
- Our unique system will be the first tyre pyrolysis of its kind in Europe
- The UK produces 450,000 tonnes of waste tyres per year .
- We only need 2.5% per cent of this waste to generate over 2million profit per year
- We will be looking for £ million to get this project started.

WHAT'S THE PROBLEM?

- It's a big one. The EU landfill directive introduced a ban on tyres shredded or whole being landfilled .
- Other tyre recycling agencies turn the waste tyres into products like mats and horse area bedding but the demand for these products is limited and therefore the waste tyres are being stockpiled. A lot of these stockpiles have been set alight which took days to weeks to be put under control.

HOW WE CAN SOLVE THE PROBLEM

- The market for waste tyres is huge 450,000 tonnes per year need processed and increasing yearly with car sales growing 20-30% per year
- Tyre depots and environmental agencies pay £70-£150 per ton to dispose of the waste tyres
- Our pilot plant will process 30 ton per day producing oil , steel and carbon black generating over 7k profits per day

PYROLYSIS IS THE SOLUTION

- Our pyrolysis system breaks down the tyres by heating the tyres in a oxygen free reactor
- This method recovers valuable products : oil , steel and carbon black.
- There is no waste after the process is complete
- We plan on opening a plant in most major cities across the UK and Europe . To meet the demand for waste tyre disposal

THE BUSINESS MODEL

- We charge per ton for processing waste tyres £70-£150 we process 30 ton per day
- The recovered products we sell : oil , steel and carbon all 3 products are in high demand
- We already have clients looking to purchase our products.
- I have the contacts for the waste tyres as I have been in the tyre business over 12 years

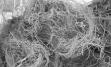
OUR USP

- Being first to market if we can get this business started straight away and roll out the system across the UK and Europe we can secure the exclusive rights for the system in Europe .
- I have 12 years experience in the tyre industry so I have gained a lot of contacts here and around the world.
- I plan in having a highly skilled team with years of experience in the waste industry

MARKETING OUR PRODUCTS

- We will market our products direct via a sales team and online via trade websites (alibaba.com and tradeindia.com)
- OIL : We have been in contact with a leading distributor in Ireland who are very interested in our pyro-oil if we are more competitive than kerosene.
- CARBON BLACK. There is 1000s of potential customers in this market to choose from as it highly sought after product.
- STEEL. We have contacted a company who will buy all our steel wire at the market value on the day.
- TYRES. I have been in the tyre trade 12 years and have contacts for the waste tyres to process.

THE RECYCLED PRODUCTS AND THEIR APPLICATIONS

ITEM	PRODUCT		YIELD	APPLICATION
1.	OIL		45%	Alternative Diesels for Burner Fuel, Industrial Driers Kilns, Boilers, Power Generator, etc.
2.	CARBON BLACK		30%	Rubber and Plastics Filler, Pigment, etc.
3.	STEEL		15%	Scrap collectors , steel factories etc.
4.	SYNGAS		5%-10%	Alternative Heating Fuel for many Industrial Applications.

THE COMPETITION

- The competition we have is tyre recyclers but I think we will be seen more as a saviour to them as they are running out of options for the waste tyres we will be their solution we can dispose of it for them.
- The only other threat is if another company starts the pyrolysis system that's why we need to be first to market and secure all the business .

THE TEAM

- Myself (Brendan Carragher) I have over 12 years in the tyre industry started up my tyre business when I was at school . Now I import tyres from across Europe and Asia into Ireland
- I hope to bring into the business my mentor Oonagh Toner who has years of experience in the waste industry and has all the connections we need to get the business going.

FINANCIAL

- I have spent a few thousand so far in applying for waste licences , permits etc. I will also be flying to Taiwan next month to meet with the factory producing the system .
- I have purchased the vehicles I need for the business vans , lorry , forklifts etc.
- I plan to raise the money for the business through investors and lease the pyrolysis system through the bank

MILESTONES AND TIMELINES

- Achievements so far is sourcing a suitable system that is profitable . Gaining a lot of knowledge in pyrolysis and the waste business
- I have secured contacts for the waste tyres and the by products (oil, steel and carbon black)
- A major milestone for the company is going to be investment to get the business off the ground.
- The next 3 months I hope to secure investors , fly to Taiwan to see the system operating and negotiate prices for the system get samples of the oil and carbon black to check quality
- Secure a premises for the factory .
- Get a team of qualified people to work with me on the project.

SUMMARY

- WE ONLY NEED 2.5% OF THE TYRE WASTE IN THE UK
- THIS GENERATES OVER £2 MILLION PROFIT PER YEAR
- PAYBACK ON THE SYSTEM IS JUST OVER 2 YEARS



EPA - Management of Used Tyres response



Mr Alex McGarel
Clerk to the Committee for the Environment
Environment Committee Office
Room 247
Parliament Buildings
Belfast BT4 3XX
Northern Ireland

South/South West Region
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Re: Correspondence re Inquiry into the Management of Used Tyres

16th January 2012

Dear Mr. McGarel,

I refer to your letter to Laura Burke dated 19th December 2011 last in relation to the above matter. Your correspondence was passed to me for reply.

The EPA is not the lead competent authority for permitting or enforcement of legislation relating to waste tyres. This function rests with the 34 individual local authorities. In May 2011, the OEE were requested by the then Minister for the Environment, Mr. John Gormley, to prepare a report on the issue of the management of waste tyres in Ireland. This was compiled and submitted to the Minister in September 2011. While I am not at liberty to release the full content of the report to you (the recommendations are being considered by the Department of the Environment as part of a broader review of Producer Responsibility Initiatives (PRIs)), I can release to you the “findings” section. This may be of interest to you in conducting the review you are doing.

The Office of Environmental Enforcement (OEE) in the EPA carries out its enforcement work in accordance with the principles of the Recommendation for Minimum Criteria for Environmental Inspections (RMCEI) – a risk-based system whereby priorities are identified and resources allocated accordingly.

The OEE does supervise the environmental protection activities of local authorities by auditing their performance, providing advice and guidance, and, in appropriate cases, giving binding directions. The OEE co-ordinates an Environmental Enforcement Network and brings together all local authorities at least twice a year to oversee the development and implementation of their own RMCEI Enforcement plans. These Network meetings afford an opportunity for national environmental protection priorities in each of the media (air, water, waste, noise etc) to be identified and included in local enforcement plans. The OEE also gathers statistics on a number of parameters such as number of inspections, no. of statutory notices, legal actions etc. The table below gives an indication of the level of activity across the combined 34 local authorities. You will note how the number of inspections of tyre outlets has increased over the last number of years.

Table 1. Number of waste related inspections carried out by Local Authorities in the 2007-2010 period.

Type of Inspection	2007	2008	2009	2010
Permitted waste facilities (e.g. applications /unauthorised sites)	2,894	2,079	1872	1648
Transfrontier shipment	282	99	766	10
Waste collection permit holders (offices & applications)	557	935	480	834
Certificate of Registration sites	472	1,502	1862	4588
Vehicle checkpoints	194	252	328	160
ECJ sites /Sites under Reasoned Opinion from EU	18	65	90	114
Tyre outlet	124	449	585	717
Joint Inspections with Unauthorised Waste EEN network	7	37	22	6
Routine litter patrols /investigations	12,453	19,269	25624	29686
Hazardous waste inspections (e.g. garages, small labs)	-	367	289	1447
C&D handling at development sites (e.g. Waste Mgt. Plans)	521	354	184	116
Other e.g. CCTV, surveillance, waste burning, fly-tipping etc.	2,670	2,434	1540	2655
Producer Responsibility Inspections (WEEE, Farm plastics, packaging etc.)	6,499	5,367	6358	3710
Subtotal (routine inspections)	26,691	33,209	40,000	45,691
Waste complaint /incident investigation (non-litter)	8,715	12,000	7082	13254
Inspections in relation to various waste permitting operations	-	827	974	796
Subtotal (non-routine inspections)	8,715	12,827	8,056	14,050
Total	35,406	46,036	48,056	59,741

Trusting this information is of assistance to you.

Yours Sincerely,

Jim Moriarty

Manager, Environmental Enforcement (Waste)
Office of Environmental Enforcement.

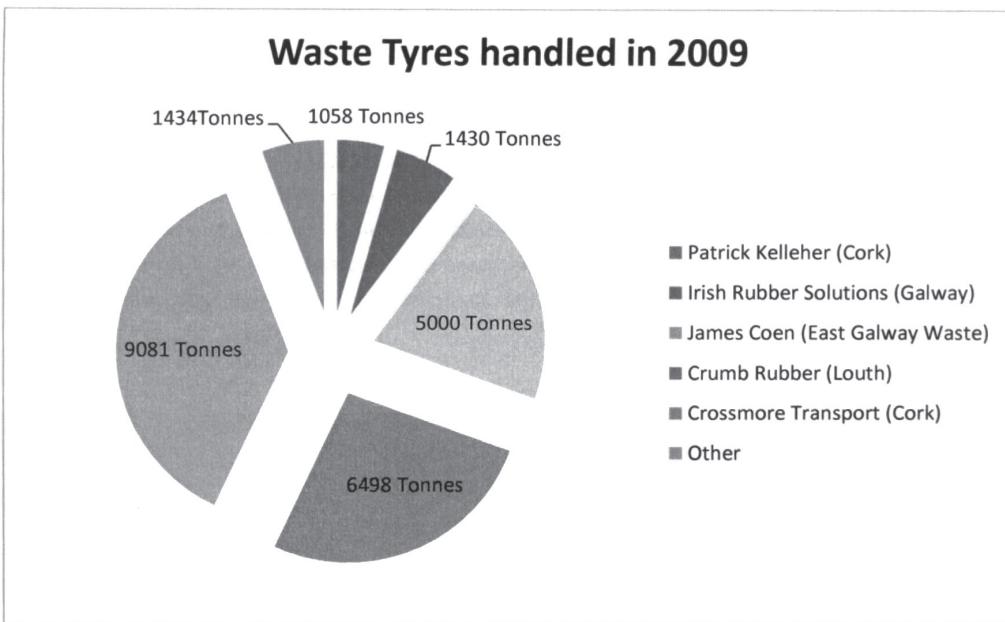


Figure 1. Tonnages of Waste Tyres handled by Facility in 2009

From our survey, five local authorities reported illegal tyre storage operations in 2009, some of these were associated with permitted facilities. The quantity of tyres illegally stored is estimated by the five authorities at 10,000 tonnes. Enforcement actions are underway by the local authorities with a site in Kerry now cleared of tyres and legal action underway against facilities in Mayo and Galway.

A number of local authorities also reported cross-border movement of waste tyres to Northern Ireland.

The EU Recommendation for Minimum Criteria Environmental Inspections (RMCEI) statistics collated by the EPA indicate that in total there were 585 inspections of tyre outlets in 2009 by local authority officers. It is not possible to say whether or not these inspections led to any prosecutions as statistics for prosecutions are not broken down by category of offence.

The National TFS office reported that there were 4066 tonnes of green list waste tyre shipments out of the country in 2009. Over half the tyres exported were to South Korea, the remainder split between the UK and Northern Ireland.

Analysis of the data

In analysing the information to hand, there are a number of issues arising warranting discussion.

Lifespan of tyres.

The lifespan of a tyre depends on the condition of the car, the roads on which it is driven, the annual mileage of the car and the actual quality of the tyre itself. It is difficult to determine when tyres that became waste in 2009 were first imported into the country.

Data on Waste Tyres

Tyre Imports reported to Central Statistics Office (CSO)

The CSO maintain comprehensive records of the number and tonnages of tyres imported into the country. They also maintain records on imported vehicles. Table 1 indicates the tonnages of tyres imported into the country and the tonnages contained on imported vehicles. For the 2007-2009 period, a combination of these figures suggests that the total tonnage of imported tyres in 2009 was 27,759 tonnes.

Year	Number of new tyres imported	Average weight per tyre ¹	Tonnage of new tyres imported	Number of imported vehicles	Estimated tonnage of tyres on imported vehicles	Total tonnage of tyres imported
2007	3,492,536	15.38kg	53,715	333,966	16,926	70,011
2008	3,197,650	13.85kg	44,288	284,171	14,237	58,525
2009	2,126,692	9.14kg	19,432	149,882	8,327	27,759

Table 1: CSO figures for tyre and vehicle imports 2007-2009.

Tyre quantities reported to Local Authorities

In 2009, there were 69 facilities permitted by local authorities to accept waste tyres. Local authorities report that these facilities received in total 24,500 tonnes of waste tyres. As illustrated by Figure 1, five of these facilities handled approximately 95% of the total waste tyres reported by local authorities.

¹ The difference in the average weight of a tyre unit between years is because the ratio of lighter (car) tyres to heavier (bus, lorry, agriculture and forestry) tyres changes.

There is no data available on waste tyres that have been sent to marinas and racetracks. However, this is not considered to be significant.

Northern Ireland.

The local authority survey indicates that some waste in the Republic of Ireland collected by operators based in the North of Ireland were brought to tyre facilities there. Currently there are no figures for this waste stream.

Cement kilns.

Another potential outlet for waste tyres is as a fuel in cement kilns. There is one facility in the country authorised to burn waste tyres: Lagan Cement in Kinnegad. Prior to burning in a cement kiln, tyres must be chipped to a consistent 50mm, clean cut shred. Lagan Cement have not been able to find a tyre processor who can consistently meet these incoming specifications. If a suitable source were available, up to 15,000 tonnes of waste tyres a year could be utilised in this outlet. This potential outlet is significant and practice in Europe includes a "gate fee" by the industry for accepting tyres.

In addition, Irish Cement in Platin, Co. Louth has recently (19th August 2010) been issued with a proposed determination from the EPA for a revised IPPC licence for their facility providing for the acceptance of up to 30,000 tonnes a year of tyre chips. This is open to third party objections and so cannot be considered as fully consented.

Other Recovery Applications

As stated previously, there are 69 Waste Facility Permit holders authorised to accept waste tyres. These accepted 24,500 tonnes in 2009 but this figure does not represent the maximum amount that can be consigned to such facilities. Individual permits would need further scrutiny for tonnages. However, this is unlikely to prove a useful exercise as many of the permits issued under the old permitting Regulations where no threshold existed for recovery activities.

Tyre Bales in Engineering Applications

The baling of waste tyres and their subsequent use in engineering (e.g fill material in road construction) is a practice that is sometimes used. The EPA has determined that tyre bales can achieve end-of-waste status if certain criteria have been met, including a restriction of 50 tonnes in each application and adherence to a standard (*PAS 108:2007 – Specification for the production of tyre bales for use in construction*, BSI, 2007). An EPA end-of-waste position paper was published in June 2010 and is available on www.epa.ie. The proposed end-of-waste criteria has been subject to a number of submissions and these are currently being examined by the EPA.

Incorporation of Tyre Bales in Concrete Blocks

Laois Tyre Recycling in Mountmellick were issued with a waste facility permit by Laois County Council in August 2010 to handle up to 10,000 tonnes per year of waste tyres. The permit provides for the processing of waste tyres into two products – either a tyre bale that could be used in engineering fill applications or a lower quality tyre bale that is used as a void-former in precast concrete blocks to be used in retaining walls. This facility represents a significant additional processing capacity.

From speaking to tyre suppliers, OEE suggests that the lifespan of a tyre ranges from a low of 10,000 km up to a high of 32,000km. Given that the CSO figures indicate an average annual mileage for cars in 2008 of 16,376 kilometres it suggests an average replacement rate of 1.2 years. Notwithstanding that a replacement rate of 1:1 is used by the industry, a replacement rate of 2 years is used for the purposes of this report. As such, tyres imported in 2007 become waste in 2009. Table 2 sets out the timelag that exists between tyres entering into use and projected waste arisings for the period 2007-2011. The difference between anticipated waste tyre arisings between 2010 and 2011 is striking and is perhaps indicative of the economic downturn two years previous.

Year	Tonnage of Tyres Imported	Estimated Waste Tyre Arisings
2007	70,011	2005 data
2008	58,525	2006 data
2009	27,759	70,011
2010	Not yet known	58,525
2011	Not yet known	27,759

Table 2. Tonnages of tyres imported compared to Tonnages of waste tyres arising 2007-2011

Actual Quantities of waste tyres received at Permitted Waste Facilities

The 24,500 tonnes of waste tyres reported as having been received at the 69 waste permitted facilities may contain some double accounting because of movement of tyres between facilities. Some facilities process the tyres, whilst others simply store the tyres for further movement. The movement of these tyres is dependent on the market for such waste. Most Authorised Treatment Facilities (ATF's) under the End of Life Vehicle Regulations 2007 forward their tyres to other permitted facilities. This was found to be the case for a number of ATFs in Laois and Dublin and it is reasonable to assume that similar practices exist elsewhere in the country.

Outlets for Waste Tyres

This section discusses a number of outlets for waste tyres at present or anticipated. It does not advocate which of these should be used in preference to another.

Farmers, marinas and racetracks.

The 2007 Waste Tyre Regulations provide for a legitimate re-use on silage pits, in marinas and on race tracks, although there is a limit on the number of tyres that can be accepted at such outlets. In addition, this is not a secure long-term outlet given that tyres used in silage pits can perform that function for many years and do not need to be replaced every year. Prior to 2008 the movement of tyres towards these outlets was unrecorded and unregulated. TRACS report that 156,974 tyres were provided to farmers in 2009 by Waste Collection Permit (WCP) holders. Data from TWM indicates that its members did not provide tyres to these outlets in 2009. As 72% of WCP holders in the Republic of Ireland are members of TRACs, we estimate that the total figure provided to farmers nationally is some 218,019 tyres, equating to 3,161 tonnes of tyres.

Findings

The main findings presented below are based on a survey of information from local authorities, the two national compliance schemes, the Central Statistics Office and from the TFS Office. Eight key findings are listed here;

1. The estimated tonnage of waste tyre arisings in 2009 was 70,011 tonnes and this is projected to drop to 58,825 tonnes in 2010 and 27,759 tonnes in 2011.
2. An OEE best estimate mass balance indicates a significant quantity of waste tyres are currently "unaccounted" for in Ireland. This could be in the order of 60%. In 2009 the total quantity of waste tyres accounted for is 27,661 tonnes, leaving an estimated gap of 42,350 tonnes.
3. Sufficient capacity in terms of approved recovery infrastructure exists in Ireland for managing this waste stream for present and projected arisings.
4. There are several operators based in Northern Ireland with waste collection permits collecting waste tyres in Ireland. However, the quantity of waste sent to Northern Ireland remains unknown.
5. Approximately one third of operators (importers, distributors, collectors and tyre retailers) are registered with the two approved compliance schemes (TRACS and TWM Ltd). The number of operators registered as self-compliers with local authorities is negligible by comparison.
6. Unlike other PRI schemes, self complying producers and the compliance schemes appointed under the Regulations have no responsibility for financing the collection of waste tyres.
7. 585 inspection of tyre outlets were conducted in 2008 by local authorities. The outcome of this level of enforcement is unclear. However, it was noted that three facilities (one each in Galway, Mayo & Kerry) were illegally stockpiling an estimated 10,000 tonnes of tyres in 2009 and that enforcement actions by the relevant local authority are ongoing.
8. Significant data gaps exist with this waste stream including:
 - a. the identification and quantification of operators coming within the scope of the 2007 Tyres and Waste Tyres Regulations;
 - b. the scale of tyre movement to Northern Ireland; and
 - c. the true quantity of unauthorised storage/disposal of tyres.

Mass Balance for Tyres

From the foregoing, a best estimate mass balance is derived for 2009. It should be noted that many of the figures in Figure 2 are best estimates. The figures for unauthorised storage were not included in the best estimate mass balance. Table 3 lists the known inputs and outputs and Figure 2 below illustrates the information schematically.

Inputs (tonnes)		Outputs (tonnes)	
Imports of New tyres	53,715	Tyres handled at Permitted Facilities	24,500
Tyres on imported vehicles	16,296	Tyres to farmers	3,161
Total	70,011	Total	27,661
Unaccounted		42,350	

Table 3: Best Estimate Tyre Mass Balance for 2009

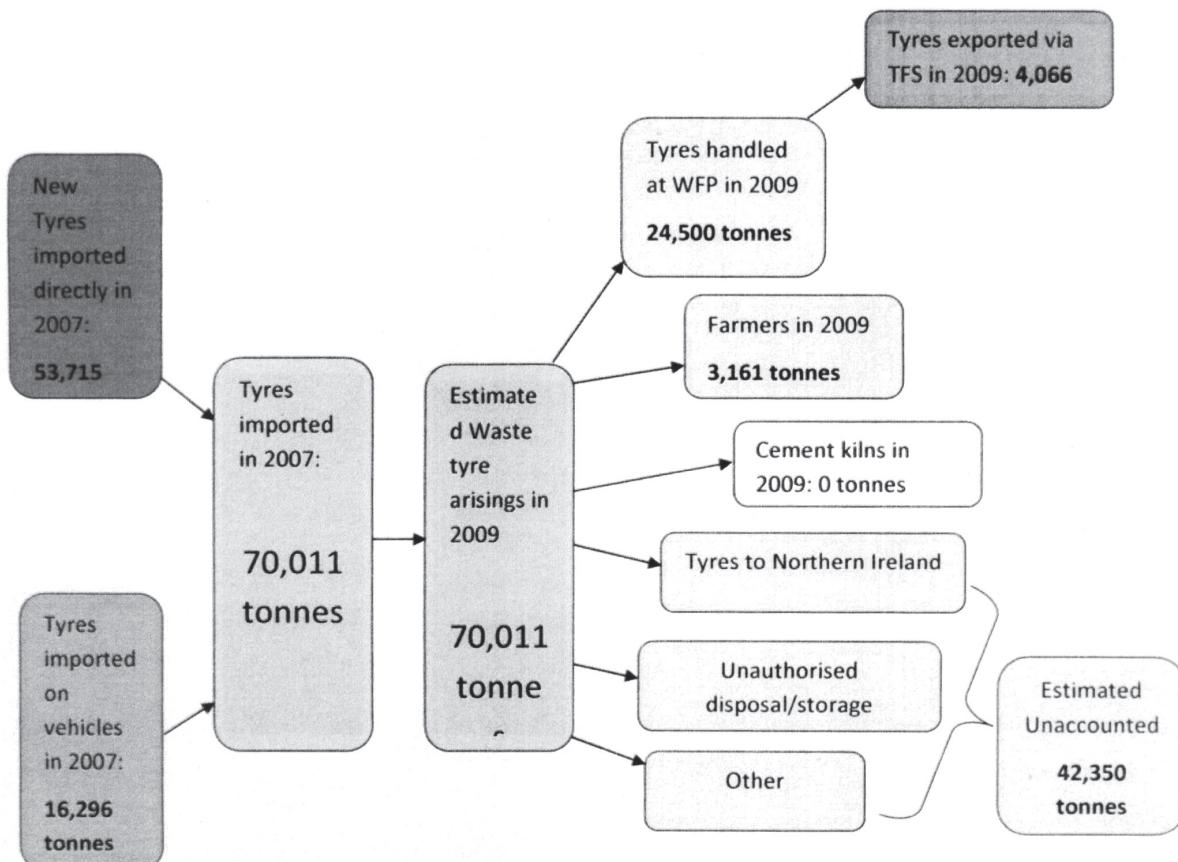


Figure 2. Flow Chart depicting Management of Tyres in Ireland



Supplementary paper on the use of tyre bales in above ground installations

Final position on end-of-waste status for tyre bales

8 December 2010

In a 2009 paper entitled: *Environmental considerations arising from the use of baled tyres*, the Environmental Protection Agency (EPA) determined that the use of tyre bales constituted a waste activity and was subject to waste authorisation. In relation to the above ground use of tyre bales, the paper stated: ‘Use in “above ground” works may be acceptable as a non-waste activity.’ The EPA was subsequently requested to determine whether the above ground use of tyre bales is classified as a non-waste activity if it can be demonstrated that tyre bales represent end-of-waste for tyres: that is, that the use of a tyre in the manufacture of a tyre bale can be said to represent the complete and full recycling of that tyre.

The Environmental Protection Agency has decided that tyre bales cannot achieve end-of-waste status in accordance with article 6 of EU Directive 2008/98/EC on waste. Tyre bales remain classified as waste in all circumstances and subject to control and regulation as waste.

This note updates and supplements the Agency’s 2009 paper referred to above and clarifies the statement quoted above to the effect that use in above ground works is not acceptable as a non-waste activity. Earlier position papers published on the EPA website on the topic and dated 9 June 2010 and 13 September 2010 are replaced by this paper.

This decision has been notified to the European Commission in accordance with article 6 of Directive 2008/98/EC on waste and the procedures set down in Directive 98/34/EC.

END

Tab 4R - Dept reply re Belfast City Council queries on tyre disposal



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Environment
www.doeni.gov.uk

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8th floor
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44-58 May Street
BELFAST
BT1 4NN

Telephone: 028 9025 6022
Email: privateoffice.assemblyunit@doeni.gov.uk

Your reference:
Our reference: CQ/42/12

Mrs Alex McGarel
Clerk to the Environment Committee
Northern Ireland Assembly
Parliament Buildings
Ballymiscaw
Stormont
Belfast
BT4 3XX

Date: 17 February 2012

Dear Alex

I refer to your request for further information regarding the Northern Ireland Environment Agency (NIEA): Environmental Crime Unit's (ECU) response to Belfast City Council dated 23 June 2011.

Background

Ms Suzanne Wylie, Director of Health and Environmental Services, Belfast City Council provided a response to the Northern Ireland Assembly Committee for the Environment Inquiry into the Management of Used Tyres in Northern Ireland dated 11 August 2011.

The council highlighted two problems in relation to the inappropriate disposal of tyres, namely:

1. The use of tyres on bonfires at particular times of the year and;
2. The illegal dumping of tyres on an ongoing basis throughout the year.

Belfast City Council stated that it experiences significant problems with the burning of tyres in bonfires over the summer months. Some groups signed up to the bonfire management programme in Summer 2011 as part of the council's funding programme for local communities to organise festivals in the summer period but there were a number of groups who did not wish to participate in the programme. Belfast City Council has indicated that it tends to be these sites where toxic material and tyres continue to be burned.

To prepare for the 2011 bonfire programme the council established an internal Bonfire Officer Group to provide a coordinated response to bonfire issues. In June 2011 the Group wrote to tyre distributors requesting that they and road hauliers refrain from supplying used tyres to bonfires. At the same time a letter was also sent to ECU emphasising how they could assist by ensuring that tyre companies dispose of their tyres in a legal manner. The ECU reply was enclosed with Belfast City Council's response to the Committee.

In relation to the illegal dumping of tyres, the council suggested in their response to the committee that this problem could be reduced if NIEA devoted some resources to the enforcement of the Controlled Waste (Duty of Care) Regulations (NI) 2002. In reply NIEA informed the council that it does not have the resources to undertake such an enforcement campaign.

The council also mentioned that The Waste and Contaminated Land (Amendment) Act (NI) 2011 will give councils and NIEA additional powers to enforce against illegally deposited waste. The Department has indicated that operational arrangements will need to be put in place and the council has requested that the issue of tyre management be included in these arrangements.

The council is of the opinion that a proactive enforcement programme needs to be put in place to curtail the quantities of tyres being used in bonfires and illegally dumped as their disposal places an additional cost on the council.

Current Position

ECU staff have in recent years participated in a number of Bonfire Groups which have been set up by District Councils. NIEA recognises and appreciates the good work undertaken by councils in writing to tyre retailers and initiating Management Programmes to control and fund coordinated bonfire events. This has undoubtedly helped to reduce the use of tyres in bonfires.

The Controlled Waste (Duty of Care) Regulations (NI) 2002 are based on a self-regulatory system and it is not mandatory for tyre retailers/distributors to submit waste transfer notes to NIEA. Further the Agency would not have the resources to cope with the mammoth paperwork this would generate from over 350 companies. It would not be feasible for NIEA to collect, collate and analyse this extremely large volume of notes. It is also unlikely that those wishing to act illegally would complete a waste transfer note or provide the correct information.

However NIEA as part of its Tyre Action Plan wrote to over 350 tyre retailers/distributors in December 2011 advising them of their legal requirements under the Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002 to produce and retain Transfer Notes for waste tyres leaving their sites for a period of at least two years. The companies were also issued with a formal Notice requiring them to submit a waste transfer note(s) for a specific week during 2011. This exercise is ongoing and will be reported on at a later date.

The current duty of care system in the UK results in over 25 million paper waste transfer notes being produced annually and around 50 million notes are required to be stored at any one time.

NIEA along with a range of other stakeholders in the public and private sector is currently participating in an EU LIFE + funding electronic duty of care (edoc) programme. Edoc will modernise the way waste data is collected in the UK and greatly improve the quality of data for companies and regulators. The programme aims to create a national, internet based system to monitor waste from cradle to grave. Edoc is scheduled to run from January 2011 to December 2014.

NIEA agrees with Belfast City Council that the issue of tyres should be included as part of the detailed operational arrangements to deal with fly tipped waste under the Fly tipping Framework.

The Department's position is that NIEA will deal with non-hazardous waste over 20m³. As tyres are non-hazardous waste, councils will deal with quantities of tyres below this threshold.

NIEA are working with local government to agree a consistent system for recording fly tipping incidents which would be used by both NIEA and councils. This may be the UK wide Fly Capture system or an alternative Northern Ireland system designed to meet the needs of NIEA and councils.

The Agency would wish to reiterate the general point in the ECU letter dated 23 June 2011 that its resources are limited and only significant fly tipping incidents above the thresholds set out in the Fly tipping Framework can be dealt with.

With regard to the four points in the ECU letter:

- 1 and 3. The essential aspect of both points is that there has to be a reasonable likelihood of a successful conviction - without an identifiable suspect (hence the reference to car registrations and identities), ECU can't pass papers to PPS, which is why the evidence needs to be backed up by statements.
2. ECU has insufficient staffing resources to check on all bonfires reported. The Unit must also bear in mind health and safety and public order issues which could come from physical site inspections.
4. ECU was set up to investigate and prosecute environmental offending on a serious and persistent, **commercial** scale.

I trust this information is of assistance, should you require anything further please contact me directly.

Yours sincerely,

Helen Richmond

DALO

[by e-mail]

Tab 4S - Dept reply re tryes and waste mgmt strategy



Department of the
Environment
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DOE Private Office
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Your reference:
Our reference: CQ/36/12

Mrs Alex McGarel
Clerk to the Environment Committee
Northern Ireland Assembly
Parliament Buildings
Ballymiscaw
Stormont
Belfast
BT4 3XX

Date: 13 February 2012

Dear Alex,

I refer to the Committee query about why there is no target for tyre recycling in the strategy.

The EU Landfill Directive introduced a ban on whole tyres being landfilled in July 2003. The ban on shredded tyres came into force in 2006. The ban applies to almost all tyres including car, commercial, motorcycle, aircraft, and industrial (including solid tyres).

The Northern Ireland Waste Management Strategy 2000 had a target of 85% recovery of waste tyres by 2005 and 100% recovery by 2010. This target was no longer necessary following the introduction of the landfill ban. As such the Department does not propose to introduce a recycling or recovery target for tyres as all tyres must already be reused, recycled or used in recovery operations. Additionally some types of tyres are more suitable for recovery rather than for recycling because of their composition.

Yours sincerely,

Helen Richmond

DALO
[by e-mail]

Tab 7F - Poole Bay response re artificial reef

From: Collins K.J. [mailto:kjc@noc.soton.ac.uk]
Sent: 02 October 2011 19:07
To: McGarel, Alex
Subject: RE: Correspondence regarding artificial tyre reefs

Alex McGarel

Clerk to the Committee for the Environment, Northern Ireland Assembly

I am responding to the questions posed in your letter of 30th September:

....would now like to know of any other longer term impacts you might have observed as a result of the reef being in place. E.g., has marine biodiversity in the area increased, has there been any change in the chemical composition of the sea in the surrounding area, has there been any economic advantage from an increase in diving tourism, etc..

Marine biodiversity has increased simply because the tyre reef provides a much greater habitat complexity than the existing flat sandy seabed. The tyres do not inhibit marine growth and present the same marine growth opportunities as other hard substrata such as rock or concrete.

Chemical composition in the sea – any changes are difficult to observe simply because of the very limited release from tyres and because of the background levels in the sea. Zinc is the main metal leachate from tyres, but seawater is naturally very high in zinc (compared to freshwater). Certain organic compounds (benzothiazoles) present in tyres are detectable in extremely low concentrations but in coastal waters the sea is polluted by the run-off from roads with these compounds present. During road use tyre are worn away as a fine dust which releases its chemical constituents into rainwater, streams and rivers. In contrast the leaching from whole tyres in the sea is many orders of magnitude lower.

Economic advantages from diving tourism were never anticipated given the small scale of the reef and the fact that it is largely protected from diving and fishing by the exclusion zone of an adjacent historic wreck site. There is a tangible fisheries benefit from the occupancy by a high density of adult breeding lobsters producing young which are restocking the local patch reefs.

Having discussed the tyre issues internationally, I would be happy to come and make a short presentation to your committee plus answer any further questions. In return I would simply ask that you could cover my travel expenses.

Yours sincerely

Dr Ken Collins

Senior Research Fellow
School of Ocean and Earth Science, University of Southampton
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Scientific Diving Supervisory Committee www.uk-sdsc.com
UK Shark Tagging Programme www.ukshark.co.uk

Departmental Response re: Prosecutions for Illegal Tyre Disposal and Investigations into Retailers on Illegal Tyre Disposal

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Mrs Alex McGarel
Clerk to the Environment Committee
Northern Ireland Assembly
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BT4 3XX

Telephone: 028 9025 6022
Email: privateoffice.assemblyunit@doeni.gov.uk

Your reference:
Our reference:

Date: 27 February 2012

Dear Alex

I refer to your request for further information to assist the Committee with their Used Tyre Inquiry. You have asked:

If any tyre retailers have ever been prosecuted for illegal tyre disposal or if there have been any investigations into retailers on illegal tyre disposal.

Background

Tyre retailers have a legal obligation under the Controlled Waste (Duty of Care) Regulations (NI) 2002 to obtain a waste transfer note from the person taking away their waste tyres and to ensure that the person is registered to carry the waste and properly dispose of it.

A number of District Councils in their responses to the Committee's Inquiry have alleged those tyres from retail outlets are being illegally deposited at bonfire sites and elsewhere.

The Councils have suggested in their responses that the current problems with waste tyres could be reduced if NIEA were to devote more resources to enforcement, particularly of tyre retailers.

Current Position

NIEA has prosecuted a tyre retailer for illegal tyre disposal and the offender was fined £10,000. There have been and are on-going investigations into tyre storage/disposal.

The Environmental Crime Unit (ECU) currently has two major cases involving the illegal management of waste tyres proceeding through the courts at present. One relates to the major tyre fires in Londonderry some time ago and the other relates to unlicensed treating, keeping and disposal of tyres in Co. Down. The Committee will be provided with updates as to the results of these cases as they progress further.

NIEA as part of its Tyre Action Plan wrote to over 350 tyre retailers/distributors in December 2011 advising them of their legal requirements under the Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002 to produce and retain Transfer Notes for waste tyres leaving their sites for a period of at least two years. The companies were also issued with a formal Notice requiring them to submit waste transfer note(s) for a specific week during 2011. This exercise is continuing and will be reported on at a later date.

I trust this information is of assistance, should you require anything further please contact me directly.

Yours sincerely,

Helen Richmond
DALO

[by e-mail]

D A Miller & Sons (Transport) Ltd Information on Waste Tyre Disposal

—Original Message—

From: info@damillerandsons.co.uk [mailto:info@damillerandsons.co.uk]

Sent: 20 February 2012 14:50

To: Lo, Anna

Cc: damillerandsons@hotmail.com

Subject: Waste Tyre Disposal

Good Afternoon,

I note that as Chair of the Environment Committee there is currently a debate going on regarding the disposal of used tyres in Northern Ireland. In 2010 we were involved in the clean up process at Campsie, Londonderry following a huge tyre fire, after this we set about finding a solution to disposing of tyres, we found a couple of alternative uses and sourced a UK based Company that would fully recycle the tyre.

Unfortunately when we costed this exercise we where hugely over priced compared with existing less scruples companies.

It would appear that money is the main driver for these companies and as they are getting the money on collection and have to pay for disposal then they take the easy option of illegal dumping. In my view it would be much better if the tyre manufacturers added a fee to the new tyre at the factory gate, and when a used tyre goes to a government authorised recycling facility that money is then released to the collector at that stage. To the best of my knowledge this is how the WEEE recycling process operates with great success as money only transfers when the waste reaches a licensed facility.

We would happy to discuss this in greater detail if you wish, as the problem will not be solved by re-active as opposed to pro-active policies.

Yours sincerely,

Glen A Miller

D A Miller & Sons (Transport) Ltd

Department of Environment, Community & Local Government response re: Approval of Tyre Waste Management (TWM)

From: Roger Harrington - (DECLG) [mailto:Roger.Harrington@environ.ie]

Sent: Wednesday, February 29, 2012 04:42 PM

To: McGarel, Alex

Cc: Kevin Giles - (DECLG) <Kevin.Giles@environ.ie>

Subject: Approval of TWM

Alex,

I refer to our earlier conversation regarding the approval of Tyre Waste Management (TWM).

The failure of TRACS to attract all economic operators into membership is on account of deep mistrust in the industry. A number of brand owners are in dispute with other economic operators over "intellectual property rights". Some economic operators left the Irish Tyre Industry Association (ITIA) and formed the Irish Tyre Wholesalers and Retailers Association (ITWRA).

It became clear from subsequent discussions that under no circumstances would members of the ITWRA participate in TRACS. This was no reflection on TRACS but was a symptom of the level of distrust within the tyre industry. Commercially sensitive information obtained by TRACS was secure, but no amount of reassurance could satisfy the ITWRA. Given the high level of non-compliance (over 50% of economic operators and approximately 75% of retailers) prosecutions was not a realistic option. Consequently the only way forward in bringing economic operators not participating in TRACS into compliance was to assist the ITWRA in developing a parallel collective compliance scheme.

As a result, the Tyre Waste Management (TWM) scheme was developed and agreed with the ITWRA. It will minimise the compliance burden on economic operators who choose to participate in TWM in the same way TRACS does.

Finally, all aspects of the disposal of waste tyres will be examined in this Department's forthcoming review of the Producer Responsibility Initiative.

If you require any further information, please do not hesitate to contact me.

Regards

Roger

Roger Harrington
Environment Policy and Awareness
Department of Environment, Community & Local Government
Newtown Road, Wexford.
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Department response Environment Committee

Tyre query draft reply

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Mrs Alex McGarel
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Telephone: 028 9025 6022
Email: privateoffice.assemblyunit@doeni.gov.uk
Your reference:
Our reference: CQ/66/12
Date: 8 March 2012

Dear Alex,

I refer to the Committee query from their meeting of 23 February 2012 in relation to the previous Departmental response (CQ/36/12). The Committee indicated that they felt that a target for tyre recycling needs to be included in the waste management strategy, requested information on what types of tyres the ban does not apply to and asked if the ban applies to the component parts of a tyre such as the inner tyre or tyre tube and what happens to them if it does.

In relation to a tyre recycling target - The EU Landfill Directive introduced a ban on whole tyres being landfilled in July 2003. The ban on landfilling of shredded tyres came into force in 2006. The ban applies to almost all tyres including car, commercial, motorcycle, aircraft, and industrial (including solid tyres). The ban effectively requires all of the tyres covered by it to be reused, prepared for reuse, recycled or recovered. In relation to these end treatments, presently the greatest market demand is for recovery purposes rather than for reuse or recycling. In any consideration of a recycling or other target there needs to be a clear understanding of the supply, processes and demand aspects of the market place to ensure the effectiveness of the policy in achieving its aims and to avoid unintended consequences such as stockpiling or illegal dumping. As you are aware, the Department is delivering on a comprehensive Tyres Action Plan to enhance our understanding of the extent of waste arisings, marketplace practices and level of compliance so that any future policy, legislative and enforcement changes can be based on up to date evidence. The Environment Committee's Inquiry Report will also inform the Department's considerations.

In relation to the types of tyres which the ban does not apply to - The EU Landfill Directive ban on tyres does not apply to waste tyres used as engineering material, bicycle tyres and tyres with an outside diameter above 1.4 metres.

In relation to the component parts of a tyre- The ban does not apply to the component parts of a tyre such as the inner tube although the vast majority of tyres are tubeless.

I trust this information is of assistance, should you require anything further please contact me directly.

Yours sincerely,

Helen Richmond
DALO
[by e-mail]



Appendix 7

Key Sectoral Issues

Key Sectoral Issues

Recyclers

R4 Tyre Recycling Ltd

Company Summary: A waste disposal site operating in Northern Ireland for the recycling and recovery of waste tyres.

Mode of operation¹: Provide tyre recovery and disposal services to a wide customer base. Produce tyre blocks to a recognised standard for use in road construction, landfill maintenance and waterway management including flood, mud bank and erosion control. Also re-tread tyres.

Key issues raised:

The Committee visited R4 Recycling to view the technology that is used to recycle tyres and to gain an insight into end of life markets.

Members heard from R4 that they experienced problems with NIEA, particularly around enforcement. There was a feeling from the company that, despite adhering to their own strict operating procedures and NIEA guidelines, they were targeted more frequently by the enforcement team than other less scrupulous businesses and that NIEA did not provide adequate support for it as a legitimate business. R4 also stated that currently there is simply no mechanism for checking up where used tyres go and that it would be more economic for councils to have facilities for tyres at community sites. The company felt that a mechanism for tracking tyres based on producer responsibility would not impact detrimentally on existing tyre waste management companies.

R4 told members that many tyre collectors are operating with a Waste Carriers Licence which can be applied for online for a £129 fee which is clearly not sufficient for the disposal of waste tyres. These collectors are undercutting R4's 70 pence charge for the removal of a waste tyre. These tyres may then be disposed of unscrupulously, including in some cases being abandoned in huge numbers in rented properties. It then becomes the responsibility of the property owner to dispose of the tyres.

R4 also voiced frustration at the lack of end markets for tyres in Northern Ireland due to NIEA restrictions, particularly in relation to baled tyres which were seen as waste rather than a product. Members were shown photos of baled tyre projects that the company had completed. The tyre bales produced by R4 have been used in numerous projects including bolstering river bends, golf course construction, repairing damage caused by burrowing rabbits, a road project in Galway, landfill engineering and the construction of a 4x4 testing track.

Members also heard that the company specifically deals in retreaded lorry tyres which are significantly cheaper than new tyres. The company informed members that most of its business in this market was from the haulage industry but that local councils could make substantial savings if they were to purchase retreaded tyres which were manufactured to the same standard as new tyres. High quality retreads can outlast cheaper, new tyres, by around 3:1. If tyres were purchased based on mileage rather than initial cost price large savings could be made. Only Craigavon Borough Council currently purchases R4 retreads. Each retreaded truck tyre saves 23kg of oil and 18kg of steel, greatly decreasing the environmental impact of tyre production. Purchase of retreads is ~15% in NI, ~30% in England, ~30% in Europe and ~50% in the US.

1

<http://www.greentyre.net/aboutus.html>

The company told members that R4 it would like to extend but has found difficulty obtaining planning permission and adequate electricity supply to run machinery, despite asking the electricity board several months ago. An extension could mean 7 or 8 new jobs.

OM Recycling

Company Summary: A waste disposal site operating in Northern Ireland for the recycling and recovery of waste tyres.

Mode of operation²: Provide collection, processing and disposal services for waste tyres. Reuse and re-tread suitable tyre casings, recycle by shredding to a multifunctional wire-free rubber chip. Produce tyre bales for use in construction and steel wire with less than 10% rubber contamination.

Key issues raised:

Before meeting with OM Recycling, the Committee met with Aughnagun Concerned Residents' Association to discuss their concerns around the operation of the OM recycling plant. The group was initially formed in response to a local council landfill but now focuses its attentions towards the OM Recycling facility.

The group told members that, despite having a meeting with OM, they found their concerns were not being taken seriously. The residents alleged that the plant operated outside official hours and that they previously had concerns about the volume of music being played in the facility. There were also concerns expressed about the proximity of the facility to neighbouring houses, the congestion caused by trucks coming to and from the plant on a small country road, the danger of tyres falling off trucks and injuring children playing outside, the potential for a tyre fire, the stockpiling of tyres and the difficulty of getting house insurance due to the proximity of the plant.

OM Recycling acknowledged the concerns of the residents and told members they have met with the residents' group to try to address the concerns and had made improvements to the site. However they feel that no residents will ever want tyre recycling activities close by and there needs to be more support by government to improve the image of legitimate recycling companies in terms of their benefits to society.

The company had originally planned to concentrate on the development of a high quality wire-free rubber chip for use in equestrian centres and play parks but had to change their plans when it became clear that local markets were not sustainable.

OM Recycling began to use tyre bales as a substitute for primary aggregate materials in construction but NIEA did not recognise tyre bales as a product and the company expressed frustration that NIEA were not flexible in their approach which resulted in tyre bale projects being non-viable.

OM Recycling then secured contracts to supply Japanese and Korean companies with Energlo, a tyre derived fuel, but the earthquake in Japan in February 2011 had caused shipping problems and had led to a stockpile of tyres at the site which could not be cleared until the companies were in a position to receive the orders.

The company feels that there is a need for a broader interpretation of the legislation in Northern Ireland and that greater expediency is needed in the decision making process. They also feel that a public body should be established to work with the private sector to develop domestic outlets within Northern Ireland and to develop more sustainable end local end markets.

OM contacted the Committee following the site visit and the Committee forwarded a copy of the company's letter to the Department for comment.

The Department's reply (Appendix 5) stated that OM Recycling Ltd had been stockpiling waste tyres for a period of time with the result that by November 2010 there were approximately 750,000 used tyres stored at the site and that the majority of the tyres were being stored on land outside their site boundary.

Furthermore, the reply stated that NIEA had expended considerable efforts to resolve this problem as it presented a very high risk to human health and the environment. The company had been served with a number of notices prohibiting the importation of waste onto the site and the removal of excessive quantities of stockpiled tyres.

During the Inquiry OM Recycling's Waste Management Licence was reinstated but it informed the Committee that it had still not received a determination from NIEA on its End of Waste query and this was preventing them building up the required stock for its customers. It was also resulting in them having to bale tyres and ship in containers on a daily basis which was adding significantly to their cost.

Manufacturer

Bridgestone Tyres

Company Summary: An international tyre manufacturer operating in Ireland with close links to UK and other European countries.

Mode of operation³: Bridgestone Ireland was established in 1990 to distribute and market the Bridgestone product range in the North and South of Ireland. It is now the largest distributor of tyres on the island.

Key issues raised:

Bridgestone stated that it wanted to deal with as many tyres as possible and operates at a high level when dealing with tyres. However, there has been a problem with DECLG in the Republic of Ireland asking Bridgestone to involve a high percentage of economic operators but they have some difficulty in getting some retailers to come into the fold.

Bridgestone also felt that enforcement needs to be stronger than it is at present as a self-regulating system still needs to have some enforcement. TRACS police it as much as they can but in one county there may be two environmental waste officers who have to police a whole raft of different areas, so the chances of their finding a small operation are very slim. Tyres do not seem to be high on the list of priorities but Bridgestone has been encouraged that there have been some prosecutions recently.

Different compliance schemes North and South would not be a good idea because local economic operators become disadvantaged on either side of the border for various reasons. As a multinational tyre distributor selling its product, Bridgestone thinks that co-operation and a similar scenario on both sides of the border would be positive and would create a level playing field on both sides of the border.

Bridgestone stated that all major tyre manufacturers at European level have committed themselves to producer responsibility but have not gone so far as to say how it should be applied in each country. Throughout Europe some countries have a Producer Responsibility Initiative scheme and others a self-compliance scheme, which is the case in the Republic of Ireland. There are different approaches but there is no major tyre manufacturer who does not realise that they must work within whatever framework they have.

Local Government

Ballymena Borough Council Tyre Marking Scheme

Mode of operation⁴: The Council offers services such as refuse collection, leisure services and pest control to its 58,500 residents.

The tyre marking scheme was developed by the Council and is managed by its Borough Warden who marks tyres in depots and other retail premises prior to the bonfire season. The scheme arose through the Council's work with local communities and bonfire organisers to try to ensure that bonfires within the area were as environmentally friendly as possible.

Having identified an ongoing monitoring and enforcement gap the Council decided to be proactive and began to visit local tyre depots and other relevant retailers, to mark all waste tyres. Tyres at each outlet were marked with a different colour and/or motif to aid identification should they appear on a bonfire or illegal dump at a later date. The Council stated that this has had a positive effect in relation to breaches of the legislation.

The Council recognises that the system is not perfect but note that it was introduced to proactively address the existing monitoring and enforcement gap as where such a gap exists there is often increased criminality.

Since the inception of the tyre marking scheme the number of tyres on bonfires and illegal sites had decreased to the point where tyres were either absent or minimised at most sites and no marked tyres were detected on any site in the borough.

The Council initiated a successful joined up approach with NIEA in 2006. During the annual visits to tyre depots council officers were accompanied by an NIEA officer who monitored compliance of tyre businesses within the borough under the duty of care legislative requirements and both agencies were therefore visible on the ground. As a result of these joint visits NIEA secured a successful prosecution against one premises for the non-production of appropriate documentation and a further two premises received warning letters. The joint approach has not been repeated on an ongoing basis due to resource implications but the Council feel that the joint visits communicated a strong message to all concerned, made a positive difference on the ground and delivered results. The Council made the following recommendations in dealing with used tyre disposal:

- A more strategic and overarching joined up approach to both proactive monitoring and enforcement must be implemented to tackle this issue
- A joined up approach similar to the 2006 joint operation i.e. localised 'duty of care' enforcement with the marking of tyres in every local authority to minimise the opportunity for criminality in the illegal disposal of tyres
- Improved communication between local authorities and the NIEA
- That the proposed Fly Tipping Protocol between the NIEA and local councils be amended to realistically reflect the role of Council and local government
- That a pilot be run between a local authority and the NIEA where proactive monitoring and enforcement is run alongside an initiative such as Ballymena Borough Council's, and that the impact of this on the ground be evaluated

Waste Management Groups

Arc 21

Company Summary: Arc21 is the umbrella waste management group for 11 councils in the east of Northern Ireland; Antrim, Ards, Ballymena, Belfast, Carrickfergus, Castlereagh, Down District, Larne, Lisburn, Newtownabbey and North Down.

Mode of operation⁵: Arc21's aim is to encourage households and businesses to 'Reduce, Re-use and Recycle' as much as possible, and deliver new waste infrastructure facilities to manage waste efficiently and in an environmentally-friendly manner.

Arc 21 felt that enforcement could be improved and that NIEA could make enforcement a greater priority within the current framework. The organisation felt that there is an opportunity to ensure that there is greater liaison between councils and that NIEA and councils need to work together.

In Scotland there is greater liaison between councils and the environment agency and Arc 21 feels that is what is lacking in Northern Ireland and that there is a lot of scope for it at a regional and local level.

Arc 21 stated that the current legal framework in respect of the duty of care, which is a self-regulating regime, is really the main plank of enforcement but that it is not too difficult to sidestep it. The authorities need to recognise where this is occurring and structure their activities to address it and this will require local knowledge which councils have.

Arc 21 favours work on a more producer-responsibility type of approach to dealing with waste tyres which could cover a wide range of things. It feels that this would bring the strength of linking the manufacturing and production element of the product with the retail element. There is also scope within the existing framework for the enforcement activities to be smarter and for there to be closer liaison between councils and NIEA. There are different models in different countries which should be examined and then the best elements should be taken out and applied locally.

SWaMP2008

Company Summary: SWaMP2008 (SwaMP) is the umbrella waste management group for the 9 councils in the south west of Northern Ireland; Armagh, Banbridge, Cookstown, Craigavon, Dungannon and South Tyrone, Fermanagh, Newry and Mourne and Omagh.

Mode of operation⁶: SWaMP's overall aim is to implement a sustainable waste management plan that will also contribute to the region's economic development. It was established in response to Article 23 of the Waste and Contaminated Land (NI) Order 1997, which states that councils must produce effective waste management plans.

SWaMP feels that councils should not have to deal with the disposal of any tyres if the policies in place with licensed tyre suppliers and garages were carried out correctly. The organisation stated that the tyre industry should be given overall responsibility for managing all tyre disposal, including fly-tipped or illegally dumped tyres. This would reduce the need for councils to have to deal with the problem and the associated burden on them and, ultimately, the ratepayers. SWaMP feels that producer responsibility is the best way to ensure a cost-effective approach and to facilitate a fairer and tighter method of control.

5 <http://www.arc21.org.uk/opencontent/?itemid=1>

6 <http://swamp2008.org.uk/about-us/>

SWAMP also stated that they were very concerned about NIEA's ability to check the validity of current waste management licences and, more particularly, suspension orders on those licences. The group stated that there should be a weekly requirement to know whether the reprocessors that some of the councils are using are licensed to accept waste tyres. SWAMP feels that a current live database needs to be established for licensed reprocessing facilities and that the vehicles used by the reprocessors have some sort of identification, similar to the taxi disc plate system, to identify whether they are actually licensed reprocessors and hauliers of waste tyres.

It also raised concerns about quantitative thresholds under the Flytipping Protocol. SWAMP feels that 20 cubic metres is too high and that the threshold should be reduced substantially, down to the Scottish model of six cubic metres. Collaboration between central and local government is crucial if this issue is to be resolved.

Retailer

Kerr's Tyres

Company Summary: Kerr's Tyres has been in business since 2002 and has two branches in Northern Ireland.

Mode of operation⁷: The Company offers a range of car and commercial tyres as well as a wheel alignment service.

Key issues raised:

Kerr's Tyres feels that the problems with illegal tyre disposal rests with the fact that the retail industry is not regulated or licensed. The company stated that, in its view, the industry is willing to pay to be licensed.

The company feels that the responsibility for the disposal of used tyres should lie with the retail industry as they are making money from the sale of tyres so it should be the retailers' responsibility to deal with the removed product at the end of the day. The retail industry feels that there is little to no enforcement and suggested that operator licensing might be the way to ensure better enforcement.



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