TC03471

Appeal number: TC/2009/12911

LANDFILL TAX - biodegradable material provided to appellant by waste contractors-sent to landfill by appellant-material decomposes and produces landfill gas including methane-methane used to power gas engines generating electricity-whether material sent to landfill said to be attributable to electricity generation discarded as waste by appellant – yes - appeal dismissed

FIRST-TIER TRIBUNAL
TAX CHAMBER

PATERSONS OF GREENOAKHILL LTD **Appellant**

- and -

THE COMMISSIONERS FOR HER MAJESTY'S REVENUE & CUSTOMS **Respondents**

TRIBUNAL: JUDGE DAVID DEMACK
MR ROGER FREESTONE FRICS

Sitting in public at Manchester on 5, 6, 8, 9, 12 and 13 March 2012

Roderick Cordara QC and Zizhen Yang instructed by KPMG, Manchester, for the Appellant

Melanie Hall QC and Simon Charles instructed by the General Counsel and Solicitor to HM Revenue and Customs, for the Respondents

DECISION

Introduction

1. This appeal is concerned with the liability to landfill tax of the appellant company, Patersons of Greenoakhill Ltd ("Patersons"). Landfill tax was introduced in the Finance Act 1996 and, for convenience, since the appeal is mainly concerned with the legislative provisions contained in that Act, throughout the remainder of our decision all references to sections and subsections of an Act of Parliament without more are to sections and subsections thereof.

2. Patersons owns and operates a landfill site at Hamilton Road, Mount Vernon, Glasgow, Scotland ("the Site"). Its site permit allows it to accept non-hazardous material, most of which it sends to landfill. Some of the material sent to landfill, being biodegradable, decomposes and produces landfill gas which consists mainly of methane and carbon dioxide. Patersons uses the methane so obtained to power gas engines. The engines generate electricity. Patersons claims not to discard that part of the material said to produce methane, discarding being a necessary prerequisite of the charge to tax. Consequently, by letter of 21 April 2009 Patersons, by its representatives, KPMG, made a claim for repayment of landfill tax of £17,628,504.15 overpaid between 31 March 2006 and 31 March 2009 said to be in respect of material used to generate renewable energy. Where appropriate we shall refer to that period as "the claim period". By letter of 14 February 2012, Patersons reduced its claim to £3,538,046.09. Patersons bases the quantum of its claim on the decomposition percentage of material deposited using a formulaic approach known as the GasSim model. The method it has adopted to calculate its claim as to quantum is set out in detail in the First Schedule to our decision.

3. We should explain that biodegradable material is carbon based material present in all living things and in materials made from living things. Predominantly, it consists of carbon, hydrogen, oxygen and nitrogen. The term biodegradable means that the material breaks up by decomposition, a biological process whereby living organisms, microbes, break down the material, enabling the organisms to grow and, in the process, release wastes in the form of gas. Biodegradable material includes that classified as putrescible, the latter, such as food, degrading more quickly than the former. Where the process of decomposition takes place in anaerobic conditions, i.e. in the absence of oxygen, as in the case of landfill sites, the microbes generate landfill gas. The volume of methane in landfill gas produced in anaerobic degradation follows a recognised curve, which quickly rises to a peak, and then tails off exponentially; it also depends on the nature of the material deposited and other factors, such as the amount of oxygen and water present in the landfill site, and atmospheric conditions

4. In the letter of 21 April 2009, KPMG claimed that four criteria contained in s.40(2) of the Finance Act 1996 for landfill tax to become due were "not fulfilled simultaneously in respect of the use of landfill material in the manner claimed and, as a result, landfill tax is not due on landfill material used to generate renewable energy".

5. The Commissioners rejected Patersons' initial claim on 21 July 2009, saying that "at the point the waste is deposited in the void all four criteria of section 40(2) of the Finance Act 1996 are fulfilled and a taxable disposal has taken place".

6. Patersons then appealed to the tribunal and elaborated on its repayment claim in its notice of appeal as follows:

> "6) It is the appellant's contention that material that generates landfill gas within a landfill site is not waste within the meaning of sections 40 and 64 Finance Act 1996 where the appellant:
>
> a) is, on the facts, the person making the disposal;
>
> b) captures and uses the gas which it produces to generate electricity; or
>
> c) sells the right to capture and use the gas to a third party.
>
> 7) As a result, the appellant contends that the gas producing material is recycled within the landfill site and the appellant intends that this should be the case. Landfill tax is therefore not due on landfill material used in this way.
>
> 8)…
>
> 9) The appellant contends therefore that if the material is not disposed of as waste, as defined by section 64 Finance Act 1996, because the site operator intends that it will be used to create landfill gas for the generation of electricity, then at least one of the criteria under section 40(2) Finance Act 1996 is not fulfilled and no tax is due".

7. In later supplying further and better particulars of its reasons for appealing, Patersons said that it had formed a general intention to use material for the purpose of producing electricity at the time it commissioned the installation of the gas engines connected at the Site. It further claimed that its general intention to produce gas crystallised at the time the company took responsibility for the waste on acceptance of a waste transfer notice for it.

8. In summary, the issue in the appeal is whether, as the Commissioners submit, all the material sent to landfill at the Site during the claim period was disposed of by Patersons with the intention of discarding it so that it was liable to landfill tax, or whether, as Patersons maintains, only part of it was disposed of with the intention of its being discarded, methane in the landfill gas from the remainder being intended to generate electricity, so that landfill tax was due only on the part discarded.

9. Although the parties agree that the Site is a landfill site, since it is situate in Scotland a written ministerial statement made to Parliament on 21 February 2012 by the Economic Secretary to the Treasury applied to it. That statement indicated that landfill sites in Scotland had unintentionally been outside the scope of landfill tax since 2000. The Finance Act 2012, enacted on 17 July 2012, corrected that flaw in the legislation.

10. At the outset of the hearing, Mr Roderick Cordara QC, leading counsel for Patersons, indicated that he intended to make application for the notice of appeal to be amended to take account of the flaw in the legislation. But he did not in fact make the application, which Mrs Melanie Hall QC, leading counsel for the Commissioners, indicated she would be strongly resisting. In the event, we were informed shortly after the hearing ended that the parties had agreed to make written submissions separately to deal with the matter. If still necessary, we therefore propose to make a separate decision dealing with what came to be described as "the Scottish question".

11. There are two other matters which the parties have agreed should not be dealt with in this decision. One is quantum, the other is the possibility of the Commissioners raising the defence of unjust enrichment in the event of our deciding the appeal in favour of Patersons. However, we cannot completely disregard quantum as argument relating to it has a bearing on Patersons' liability to tax, the latter being the only subject on which we are presently required to adjudicate.

12. As we have already said, leading counsel for Patersons was Mr Roderick Cordara QC, and leading counsel for the Commissioners, Mrs Melanie Hall QC. Mr Cordara led Miss Zizhen Yang, and Mrs Hall led Mr Simon Charles.

13. Counsel produced six bundles of copy documents, including the witness statements of five witnesses who were called to give oral evidence. Those witnesses were:

a) Mr Stuart Selvey, Patersons' site engineer;
b) Mr Gary Grantham, the technical director of Sinclair Knight Merz (Europe) Ltd, who specialises in providing consultancy services to the landfill industry;
c) Mr William Paterson, the chairman of Patersons, who was also until 30 November 2010 its managing director;
d) Mr Thomas Main Paterson, the son of Mr William Paterson, who succeeded his father as managing director of Patersons;
e) Mr Mark Bourn, a research scientist in the Environment Agency's Evidence Directorate working in the climate change and resource efficiency team.

14. In addition to the documentary and oral evidence, on 21 February 2012 the tribunal visited the Site. The visit was telerecorded and we were provided with a DVD of it. In evidence, Mr Paterson junior confirmed, and we accept, that the factual information with which we were provided on the visit was correct.

15. From all the evidence presented to us, we make the findings of fact which follow the relevant parts of the landfill tax legislation and the case law in point in the appeal. We also include certain regulatory material, which takes the form presented to us by Mrs Hall in her skeleton argument. That material is to be found in the Second Schedule to our decision.

16. Notwithstanding that the appeal is concerned with Patersons' liability to tax in the claim period, the evidence was presented to us on the basis that the Site is

presently operated very similarly, if not identically, to its operation in the claim period. In reciting the facts we find we therefore propose to use the present tense, except where it is clearly inappropriate to do so.

The landfill tax legislation

17. Part III of the Finance Act 1996 contains the principal charging provisions to landfill tax. It extends from section 39 of that Act to section 70. Section 39 provides that "A tax, to be known as landfill tax, shall be charged in accordance with this Part".

18. Section 40 deals with the charge to tax in the following terms:

> "(1) Tax shall be charged on a taxable disposal.
> (2) A disposal is a taxable disposal if -
> (a) it is a disposal of material as waste,
> (b) it is made by way of landfill,
> (c) it is made at a landfill site, and
> (d) it is made on or after 1st October 1996.
> (3) For this purpose a disposal is made at a landfill site if the land on or under which it is made constitutes or falls within land which is a landfill site at the time of the disposal."

19. We might at this point observe that it is common ground that subsections (b), (c) and (d) of s.40(2) are satisfied; only (a) is in dispute.

20. By s.41 liability to pay the tax is imposed on the landfill site operator, he being defined as the person who is at the time of the disposal the operator of the landfill site which constitutes or contains the land on or under which the disposal is made.

21. Section 42 prescribes the amount of in the following terms:

> "(1) The amount of tax charged on a taxable disposal shall be found by taking –
>
> (a) [£13]* for each whole tonne disposed of and a proportionately reduced sum for any additional part of a tonne, or
>
> (b) a proportionately reduced sum if less than a tonne is disposed of.
>
> (2) Where the material disposed of consists entirely of qualifying material this section applies as if the reference to [£13]* were to £2.
>
> (3) Qualifying material is material for the time being listed for the purposes of this section in an order.
>
> (4) The Treasury must have regard to the object of securing that material as listed if it is of a kind commonly described as inactive or inert."

*This is the figure included in the Finance Act 1996. It has since been increased on a number of occasions.

22. Sections 47 to 57 concern the administration and collection of landfill tax.

23. Section 64 explains what is meant by "a disposal of material as waste" as follows:

"(1) A disposal of material is a disposal of it as waste if the person making the disposal does so with the intention of discarding the material.

(2) The fact that the person making the disposal or any other person could benefit from or making use of the material is irrelevant.

(3) Where a person makes a disposal on behalf of another person, for the purposes of subsections (1) and (2) above the person on whose behalf the disposal is made shall be treated as making the disposal.

(4) The reference in subsection (3) above to a disposal on behalf of another person includes references to a disposal –

(a) at the request of another person;

(b) in pursuance of a contract with another person."

24. Section 65 interprets s.40(2)(b) as follows:

"(1) There is a disposal of material by way of landfill if –

(a) it is deposited on the surface of land or on a structure set into the surface, or

(b) it is deposited under the surface of land.

(2) Subsection (1) above applies whether or not the material is placed in a container before it is deposited.

(3) Subsection (1) (b) above applies whether the material –

(a) is covered with earth after it is deposited, or

(b) is deposited in a cavity (such as a cavern or mine).

(4) If material is deposited on the surface of land (or on a structure set into the surface) with a view to it being covered with earth the disposal must be treated as made when the material is deposited and not when it is covered…"

25. So far as material, section 70 provides:

"(1) Unless the context otherwise requires –

'material' means material of all kinds, including objects, substances and products of all kinds;

'taxable disposal' has the meaning given by section 40 above.

(2) A landfill disposal is a disposal –

(a) of material as waste, and

(b) made by way of landfill."

26. The Finance Act 1996 makes provision for the Landfill Tax Regulations 1996. Part V of those regulations deals with "Credit: Permanent Removals etc.", and the parts thereof relevant for present purposes are the following:

"Entitlement to credit

21.(1) An entitlement to credit arises under this Part where-

(a) a registered person has accounted for an amount of tax and, …, he has paid that tax; and

(b) in relation to the disposal on which that tax was charged, either –

(i) the reuse condition has been satisfied; …

(2) The reuse condition is satisfied where –

(a) the disposal has been made with the intention that the material comprised in it –

(i) would be recycled or incinerated, or

(ii)removed for use (other than by way of a further disposal) at a place other than a relevant site;

(b) that material, or some of it, has been recycled, incinerated or permanently removed from the landfill site, as the case may be, in accordance with that intention;

(c) that recycling, incineration or removal –

(i) has taken place no later than one year after the date of the disposal; or

(ii)…

(d) the registered person has, before the disposal, notified the Commissioners in writing that he intends to make one or more removals of material in relation to which sub-paragraphs (a) to (c) above will be satisfied.

(6) The amount of the credit arising under this Part shall be equal to the tax that was charged on the disposal; except that where only some of the material comprised in that disposal is removed, the amount of the credit shall be such proportion of that tax as the material removed forms of the total of the material."

Case law

27. The case law in point in the appeal consists of but four cases, those of the *Commissioners of Customs and Excise v Parkwood Landfill Ltd* [2003] 1 WLR 697, ("Parkwood"), *Commissioners of Revenue and Customs v Waste Recycling Group* [2008] EWCA Civ 849 ("WRG"), *ICI Chemicals and Polymers Ltd v Commissioners*

of Customs and Excise (1998) WL 1120723 ("ICICP"), and *Customs and Excise Commissioners v Darfish Ltd* [2000] All ER (D) 316.

28. We can deal with the *Darfish* case quickly. Two relevant points emerge from the judgment of Moses J in that case. First, the point of disposal is a moment in time and, secondly, the learned judge was unimpressed by the proposition that the point in time at which title passes could ever cast any light on the question of intention.

29. The facts in *Parkwood* were that a local authority delivered waste to a recycling company which divided the waste into that capable of being recycled, and that which was not. The latter was disposed of at Parkwood's landfill site, and landfill tax paid on it. Parkwood also bought some of the recycled material, in the form of aggregates and fines, and used it on its landfill site for roadmaking purposes and landscaping. The Court of appeal held that landfill tax was payable when material was disposed of as waste by way of landfill at a landfill site, but not when recycled material was used at such a site. Consequently, the Court decided that Parkwood was not liable to landfill tax on the material used for roadmaking and landscaping.

30. The leading judgment was given by Aldous LJ. At [9] and [10] of his judgment, he explained the relevant law in the following way:

> "9. Landfill tax was introduced as from 1 October 1996 by the Finance Act 1996. The tax is a creature of domestic statute in that it is not a tax required under any provisions of Community law. However the United Kingdom does have obligations in Community law to take appropriate steps to encourage the prevention, recycling and processing of waste under Council Directive 75/442/EEC. The Environmental Protection Act 1990 is the key piece of domestic legislation enacted to meet this obligation. Landfill tax can therefore be seen as a separate domestic initiative aimed at protecting the environment and securing the ambitions of the Directive.
>
> 10. A government White Paper of December 1995 entitled "Making Waste Work" (Cm 3040) preceded the imposition of landfill tax. It examined the strategies to be adopted to reduce the environmental impact of waste disposal. So far as landfill was concerned, three main objectives were set out. First, to reduce the amount of waste; second to reduce the amount of material going to landfill; and third to place the cost of landfill on the person disposing of the waste. In that way waste producers would become aware of the cost of their activities. The central purpose of the landfill tax was stated to be
>
> > 'to ensure that landfill costs reflect environmental impact thereby encouraging business and consumers in a cost effective and non-regulatory manner, to produce less waste; to recover value from more of the waste that is produced; and to dispose of less waste in landfill sites.' "

31. Having observed that the differences between the parties to the appeal turned upon whether s.40(2) required the disposal, which was the taxable disposal, to satisfy all the conditions of the subsection, Aldous LJ rejected a submission by counsel for

the Commissioners that the scheme of the relevant sections of the 1996 Act was to tax all waste material going to landfill unless specifically excepted. He did so, saying:

> "20. I do not believe that the scheme of the Act is that submitted by Mr Havers [counsel for the Commissioners]. The Act must, in my view, be construed against the background of its purpose. There is no dispute that one of the purposes of the Act was to promote recycling and to reduce the amount of waste going to landfill. To tax recycled material used for road making and the like at landfill sites would be contrary to that purpose. If that had been part of the scheme of the Act, then I would have expected there to be a clearer indication in the relevant sections.
>
> 21. The crux of the dispute between the parties does not turn upon the construction of the word 'disposal'. It depends upon what is a taxable disposal. Is it a disposal made at one time?
>
> 22. I am of the view that the natural meaning of section 40(2) requires a disposal which is a taxable disposal to satisfy the conditions in paragraphs (a), (b), (c) and (d) at the same time. Those paragraphs used the word 'it' to refer back to the 'disposal' which suggests that the disposal has to be made at a landfill site by way of landfill and also to be a disposal of material as waste.
>
> 23. The tax is a landfill tax, not a landfill and recycling tax. The tax is to be paid when waste material is disposed by way of landfill in a landfill site: not on waste material (e.g. fines) which has been recycled (e.g. into blocks) which may be used in a landfill site (e.g. to build a wall or hard standing). The disposal referred to in section 40(2) is a particular disposal."

32. Aldous LJ added at [27] and [28]:

> "27. The commissioners also submitted that there was nothing in the statute which suggested that material which had been discarded as waste ceased to be waste because it had been successfully recycled. That submission is contrary to common sense. Take material which is thrown away. That is waste. Melt it down and mould it into a spare part for a machine and it is not waste. There need be no change in chemical substance to convert waste into a useful product. It is the act of recycling which is important. This is recognised by Parliament in its drive to promote recycling rather than disposal and recognised by the cumulative effect of section 40(2).
>
> 28. The commissioners accept that their argument leads to the result that companies such as Parkwood will be liable for tax if they use recycled material for site engineering or building purposes, whereas they would not be liable for tax if they used fresh materials. That cannot have been the intention of Parliament when they introduced the landfill tax. The purpose of the legislation was to tax waste material deposited at landfill sites and not to tax deposits at landfill sites of useful material produced from waste material."

33. Aldous LJ concluded at [30] that "it is the intention of the disposer at the site" that is relevant; "the tax bites upon the person who discards not who recycles."

34. In *WRG*, the group of companies concerned provided waste management services and, as a landfill site operator, made a landfill tax repayment claim in relation to inert materials, such as construction and demolition waste, which it used on its landfill site for engineering purposes such as the construction of site roads, or in compliance with waste management licence conditions requiring daily coverage of the site.

35. The Court of Appeal confirmed that landfill tax was payable only if there had been a disposal of material "as waste" for the purpose of s.40(2)(a), and there was a disposal of material as waste if the person disposing of the material intended to discard it, see s.64(1), the Chancellor (with whom the other members of the court agreed) saying:

> " 29. Whether or not there is a liability to landfill tax in respect of the materials to which this appeal relates depends on the proper interpretation and application of the provisions of Part III of Finance Act 1996. We are bound by the decision of this court in Parkwood in respect of the aspects of interpretation with which it dealt. But we are not concerned with the applicability to the facts of this case of the judgment of this court in Parkwood or of Moses J. in Darfish. In my view the decisions of both the Tribunal and Barling J. are open to the criticism that too much time was taken up with the application of those judgments to the categories of material which I have mentioned and not enough to the application of the legislation to the facts of this case.
>
> 30. The question is whether there was a taxable disposal of the materials used by WRG for daily cover and road construction. That depends on whether there was a disposal which satisfied all four conditions laid down in s.40(2). The decision of this court in Parkwood establishes that all four conditions must be satisfied at the same time. Though elements of the taxable disposal may occur sequentially, and to that extent the decision of Moses J. in Darfish is consistent with the decision of this court in Parkwood, the four conditions for liability specified in s.40(2) must be satisfied at the same time. That moment must be the time at which the last of them is satisfied. That is likely to be the moment when the material is disposed of as landfill in accordance with the provisions of s.65. "
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> …
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> 33. In those circumstances, in my view, it is clear that, assuming there to have been a disposal at all, the disposal relevant for the purposes of s.40(2)(a) was made by WRG on its own behalf. So the question posed by s.64(1) is whether WRG then intended to discard the materials. The word "discard" appears to me to be used in its ordinary meaning of "cast aside", "reject" or "abandon" and does not comprehend the retention and used of the material for the purposes of the owner of it. I agree with counsel for WRG that s.64(2) does not apply in

such circumstances because there is, at the relevant time, either no disposal or no disposal with the intention of discarding the material.

34. It follows from this conclusion that the relevant intention may well not be that of the original producer of the materials. There is no principle that material once labelled as "waste" is always "waste" just because the original producer of it threw it away. That is not the relevant time at which the satisfaction of the conditions imposed by s.40(2) is to be considered. (1) Recycling may indicate a change in the relevant intention but it is not an essential prerequisite. (2) Re-use by the owner of the material for the time being may do likewise. Thus although the passing of title is not conclusive, it is, in my view, of greater relevance than Moses J., the Tribunal or Barling J. were prepared to attribute to it.

35. It may be that the economic circumstances surrounding the acquisition of the materials in question by the ultimate disposer of them will cast light on his intention at the relevant time. They cannot, as I see it, affect the decision on this appeal because the use of the relevant materials by WRG is clear and such use is conclusive of its intention at the relevant time by whatever means and on whatever terms WRG acquired them.

36. In my view, the materials used by WRG for daily cover and building roads were not the subject matter of a taxable disposal as defined in s.40(2). …"

36. The Court held that no landfill tax was chargeable on the material on the basis that the relevant instruction for the purpose of s.64(1) was that of the landfill site operator, and that the operator had no intention of discarding the material.

37. In *ICICP*, the tribunal accepted a number of submissions by counsel for the Commissioners. First, it accepted at [25] there is no necessity to have recourse to any definition outside the Finance Act 1996 itself. And then at [30] it also accepted:

"1) that the power to tax must be derived from within the four corners of the statute creating the taxing power;

2) that where the words of a taxing statute are clear, it is impermissible to refer to, e.g. Parliamentary material;

3) that the power to tax created by section 39 of the 1996 Act and those sections following s. 39 are not powers that stem from any European Directive or were enacted to give effect directly to any European purpose."

Energy recovery from waste

38. Energy recovery from waste can be achieved either by the direct process of burning, or by subjecting the waste to a biological process such as anaerobic digestion. The highest value of energy recovery from waste is obtained by burning it in incinerators. Incinerators burn waste at very high temperatures and the resulting heat can be used to create kinetic energy and, in turn, generate electricity.

39. As we have said, anaerobic digestion produces methane. The ignition of methane in a conventional spark ignition engine also releases energy, in this case in the form of kinetic energy. That energy can be converted into heat and electricity through a generator.

40. The commercial energy recovery process, known as the gas utilisation scheme, is the same as anaerobic digestion, but on a larger scale.

The facts

41. Patersons is family owned and managed, and is a subsidiary of Patersons Quarries Ltd, a group holding company. The holding company can trace its origin back to 1826. In addition to Patersons, the group contains three engineering companies and a facilities management company. The group employs some 600 people, and in 2009 had a turnover of £47 million.

42. The Site which extends to 91 hectares lies to the east of Glasgow, is bounded by the A74 road to the north, and by the River Clyde to the south. The M74 Motorway crosses the Site, dividing it into two distinct areas.

43. From the 1930s onwards the Site was used as a sand and gravel quarry. Patersons acquired it whilst it was being so used. On supplies of sand and gravel being exhausted, Patersons determined to continue operating the Site as a landfill site. In order to do so, it had first to obtain a waste management licence and planning permission for the operation.

44. Patersons was granted a waste disposal licence for the Site on 15 December 1978. By virtue of s.77(2) of the Environmental Protection Act 1990, on the company registering for landfill tax that licence fell to be treated as a waste management licence. It therefore became subject to the provisions of Part II of the Environmental Protection Act 1990. The change to waste management licence took place on 7 March 1995. Para 139 of the licence provided that, "By September 1995 a suitable, whole site, landfill gas collection system requires to be installed and maintained in an efficient and effective working order to the satisfaction of the Director of Environmental Health of the City of Glasgow District Council". As a result Patersons, as a temporary measure, started using a gas collection system consisting of a network of pipes and a pump to draw off the landfill gas, collect and flare it. And para.140 of the licence went on to say, "This licence requires that by September 1995 the landfill gas collected on site requires to be flared or utilised or subject to other satisfactory control as approved by the Director of Environmental Health of the City of Glasgow District Council". The licence was modified on 27 June 2000 to authorise the disposal, keeping and treating of waste in accordance with a working plan, which had to be reviewed every 12 months. The result of each review had to be presented to the Scottish Environment Protection Agency ("SEPA"). Any changes made to the working plan as a result of a review could be implemented only with SEPA's written consent.

45. In the associated planning application Patersons sought permission for the "installation of a gas management (abstraction and flaring) system comprising gas flare stack, compound and underground pipes…". The application was granted on 19 October 1995, the use sought being said to be "incidental to the lawful use of the land as a landfill site".

46. Patersons operated the Site under a waste management licence until 29 March 2007, when the licence expired. The following day the licence was replaced by a pollution, prevention and control (PPC) permit, which continues in force to this day. The permit provides for the collection, treatment and management of landfill gas, and is the means whereby many of the requirements of the Landfill Directive 75/442 are implemented, including the requirements for landfill gas management. The parts of the permit relevant for present purposes are the following:

> "1.1.2 The Permitted Activities are landfill activities receiving more than 10 tonnes in any day or with a total capacity exceeding 25,000 tonnes, excluding landfills of inert waste together with the Directly Associated Activities specified in Condition 1.1.4
>
> 6. CONTAINMENT AND CAPPING
>
> 6.1. **Geological Barrier**
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> 6.1.1. No waste shall be deposited in an area of the Site Landfill unless the base and sides of that area consist of an artificially established, engineered, compacted mineral layer having as a minimum the following standards:
>
> a) a geosynthetic clay liner with hydrated thickness greater than or equal to 10 millimetres, an unhydrated thickness greater than or equal to 6 millimetres and a permeability of less than or equal to 2x10-11 metres/second; and
>
> b) a compacted layer of clay with a thickness of greater than or equal to 0.5 metres and a permeability of less than or equal to 1x10-9 metres/second.
>
> 6.5 **Leachate management**
>
> 6.5.1 Leachate management shall be carried out in accordance with the Management Plan. Contaminated water shall be collected, treated and discharged in accordance with the Management Plan.
>
> 7. LANDFILLING OPERATIONS
>
> 7.2 **Waste Emplacement**
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> 7.2.3 At the end of each working day cover material shall be applied on areas of the Site Landfill used for the disposal of waste to prevent wind blown litter and animal nuisance

8. LANDFILL GAS

8.1 **Landfill Gas Management Systems**

8.1.1. A landfill gas management system shall be provided for each cell or phase, the objective of which shall be to collect, extract and dispose of or utilise landfill gas arising from the Permitted Installation in such a way that minimises damage to or deterioration of the environment and risk to human health or serious detriment to the amenities of the locality.

8.1.2. The landfill gas management system shall be operated in accordance with the Management Plan.

8.1.3. By 30 June 2007 the operator shall prepare and implement a reviewed Gas Management Plan. The Gas Management Plan shall provide procedures to minimise the nuisance and hazards arising from landfill gas production at the Site…

8.1.5. The landfill gas management system shall have sufficient capacity and extent to optimise the collection, extraction and disposal or use of the landfill gas which is generated at the Permitted Installation.

8.1.6. The landfill gas management system shall be operated and maintained to meet the standards specified in any other conditions of this Permit for:

a) balancing the extraction system; and

b) limiting emissions from the site, landfill gas flaring system and any landfill gas utilisation system provided.

8.1.13. A review of the gas management system shall be carried out on an annual basis, to ensure that the system is continuing to meet its design and performance standards. The first review shall be carried out, recorded and submitted to SEPA by 30 June 2007 and incorporated into the revised Landfill Gas Management Plan. Subsequent reviews shall be carried out not more than one year following the previous review. The review shall incorporate a survey of capped areas to ensure their integrity is maintained. Details of the review shall be recorded and submitted to SEPA."

47. The current gas management plan for the Site, revised no. 5, was produced exclusively for Patersons in June 2010 by EnviroCentre. As we understand it, it differs but little, if at all, from the earlier plan. The Gas Management Philosophy is set out therein as follows:

"Patersons of Greenoakhill are dedicated to ensuring that landfill gas is controlled safely and effectively to prevent pollution of the environment and harm to human health. They are committed to maximising the use of the gases generated by the degrading waste, in line with the requirements of the Landfill Directive and the Landfill (Scotland) Regulations 2003, as amended. To

facilitate this, a landfill gas management system shall be provided for each cell or phase to facilitate the collection, treatment and utilisation or disposal of landfill gas arising."

48. That philosophy was set out in Patersons' earlier gas management plan in identical terms.

49. The permit was varied on 17 December 2007 to require a construction quality assurance plan for the installation of any permanent landfill gas management infrastructure. Such a plan is a formal means of ensuring that the infrastructure meets the necessary standards.

50. We observe, and find, that although the Gas Management Philosophy indicates that Patersons is committed to "maximising the use of the gases generated by the degrading waste", and claims to have had such intention at least as early as 2000, the company's legal obligation was, and is, restricted to dealing with the gas in accordance with its PPC permit.

51. Patersons claims that the commitment to maximising use so expressed goes to the company's commercial intention support of the claim. All Patersons' witnesses maintained that the company has an obligation to use the methane produced at the Site. We accept that the company has an obligation to deal with the gas in accordance with its permit, but whether that obligation indicates its intention commercially to use the methane is a matter with which we shall later deal following our consideration of the submissions of the parties.

Gas collection infrastructure

52. Patersons developed the Site for landfill purposes in stages so that it now consists of four zones. Zones 1 and 2 form what Patersons refers to as the Old Site, and contain gas producing materials. Those zones were developed under the waste management licensing system. They were not sealed and were operated on the basis that the harmful materials they contained would be filtered out naturally due to the geological conditions found on the Site. Zones 1 and 2 have now closed to the acceptance of landfill, but continue to produce landfill gas. Zone 3, referred to by Patersons as the New Site, also contains gas producing materials, was developed under the Pollution, Prevention and Control (Scotland) Regulations 2000 ("the PPC Regulations"), and became operational in 2007. Zone 4 is an inert area not containing any gas producing materials.

53. Each zone in the Site consists of a series of cells which have been engineered to operate independently of each other. Each cell within zone 3 is engineered over a basin in which liquid waste collects, and is constructed in such a way as to prevent gas and other materials migrating from one part of the Site to another. Deposit of the material in cells creates manageable units and isolates pollutants.

54. Zone 3 was engineered by Patersons to comply with the PPC Regulations in such a way as to be consistent with guidance produced by the Department of the Environment ("the DOE"). The DOE Waste Management Paper 26B explains the

engineering requirements for the Site, and summarises the system required for landfill gas management. It includes a requirement for containment and collection or utilisation of the landfill gas. More detailed engineering requirements were set out in the now superseded DOE Waste Management Paper No.27.

55. Patersons achieves containment by engineering each cell to create a sealed vessel. It first creates an impermeable base layer of clay over which an impermeable liner of high density polyethylene is placed. The liner prevents the migration of liquids and gases through the base of the Site. The company uses inert materials to cover and protect the liner in a layer known as "fluff". On top of the fluff layer it places aggregates to act as a drainage layer, and has a system in place for management of the leachate levels in the Site. The leachate management system contains a plastic pipe which feeds into a sump where leachate naturally collects. The leachate is then pumped out and spread onto the remainder of the Site. Leachate recirculation may reduce the temperature of material in landfill, and thereby slow the process of methane production. To prevent migration of landfill gas through the top of a cell filled with waste material, it is capped with clay and other materials impermeable to gases. Such engineering promotes the production of landfill gas which, as we have said, is generated in anaerobic conditions. Once a cell has been infilled with material, Patersons caps it with clay and other materials impermeable to gases to prevent migration through the top of the cell. It claims to do so to promote the production of landfill gas.

The gas collection system

56. The gas collection system Patersons uses comprises wells drilled into the Site, a network of pipes, and a series of pumps to draw off the landfill gas. The company surveys each cell to determine how deep the Site can be drilled, and seeks to drill its average well to a depth of 30 metres.

57. Mr Selvey, or someone instructed by him, determines where gas wells should be located. The first well to be drilled in any cell is the deepest. The other wells are drilled as Mr Selvey directs, usually some 40 metres apart, but none is drilled to a depth that might damage the drainage layer. Patersons claims that the distance it has chosen between each well ensures that it obtains the highest quality gas and keeps drilling costs to a minimum. It maintains that if wells are too widely spaced, landfill gas can migrate round the Site, creating safety problems. Mr Bourn accepted that the collection well spacing at the Site was generally consistent with the Government's guidance, as contained in its publication Guidance on the Management of Landfill Gas.

58. Patersons engages specialist contractors to drill wells. They use a rig mounted on caterpillar tracks for the purpose. Having drilled into a capped cell they then place a perforated tube in the drill hole, and the gap between the piping and the hole is filled with aggregates to stop landfill material blocking the perforations. If, whilst drilling, a rig hits a solid object, Patersons abandons the well concerned, backfilling the drill hole with bentonite, an impure clay. That prevents both excess moisture entering the cell, and gas escaping.

59. Each well is connected to a vent at the wellhead via an airtight seal. The wellhead contains a control valve and sampling point which can be attached to a gas analyser. The control valves have a mechanism which can be physically adjusted by means of a spanner to adjust the gas flow from a well. The airtight seal is required to prevent air being drawn in by the negative pressure in the capped cell; the capped cell and gas system must be airtight. If air enters the system it can render gas unusable because Patersons gas engines require good quality gas to operate efficiently. Gas contaminated by containing too much oxygen will cut out an engine and thus stop electricity generation; it may also cause a risk of underground fires.

60. Each well is also connected to a network of overground pipes which transport the gas from the well to a gas compound on the Site. The pipes, constructed of high density polyethylene, are welded together by means of an electro-fusion coupling. Strong connection between the pipes is essential as the Site is prone to movement caused by the use of heavy machinery and landfill settlement.

61. As the pipes near the gas compound their diameter increases to accommodate the increased volume of gas. The network of pipes includes a number of manifolds which are essentially gas pipe interconnectors allowing the accumulation of gas from a number of pipes into a single larger pipe.

62. There is a time delay of between a few weeks and a few months from the capping of the well to its drilling. That is due to particular conditions, such as wet weather. Every effort is made to drill and connect the pipework as quickly as possible.

63. The network of pipes on and in the Site includes a number of isolation valves which are required to enable necessary repair work to be carried out from time to time.

64. The pipe network also includes a number of “knockout pots”, where any excess moisture is collected. Collection is necessary to remove moisture from the gas to ensure that it is usable in Patersons gas engines. The liquid sitting in the sump is pumped off periodically and returned to landfill.

65. The gas collection pipework is linked to two pumps which draw the gas off the Site.

66. In addition to the main wellheads, there are other wells known as “pin wells”. They are of lesser diameter than the main wells and are used both as fine controls to maximise the collection of gas and to prevent problems from gas migration.

67. The process of anaerobic decomposition which takes place on the Site differs substantially from that in an anaerobic digestion plant. As we have explained, the process in the former is one of simply allowing nature to take its course, and to produce landfill gas in the process of time – time for the purpose being measured in months and years. In the latter waste material is burned and processed from start to finish in a matter of a few hours.

Issues with gas production

68. To maintain the gas yield from the Site, the network of pipes requires active management. Patersons claims to ensure maximum efficiency in gas production and collection by equalising the volume of gas coming off the Site and that of gas being produced. It avoids the over-extraction of gas as that causes the rate of the chemical reaction to reduce and can lead to excess air, i.e. oxygen, being drawn into the system. On the other hand, it also avoids the under-extraction of gas as that can lead to gas migration around the Site, as well as to an over-concentration of methane in the gas collected.

69. Patersons claims good landfill gas to consist of between 50% and 60% methane. If the level of oxygen in the gas is too high the gas engines do not perform properly. The company controls the level of oxygen entering the system manually by attaching a gas analyser to the wellhead and varying the flow thereat.

70. Mr Selvey records the levels of landfill gas and oxygen and, if necessary, adjusts the rate of flow of gas by using the adjustable mechanism at the control valve. He is also required to adjust the flow rate on the valve to take account of weather conditions, as high atmospheric pressure tends to hold the gas in the ground, whereas lower pressure draws gas off the Site. Moisture levels within the Site also affect gas production, warm moist conditions being ideal for the production of landfill gas. Glasgow being an area of relatively high rainfall, it is generally unnecessary for Patersons to add moisture to the gas producing material, but there are some dry pockets on the Site which need added moisture. They are dealt with by Patersons pumping leachate into them from the sump at the bottom of the cell.

71. Patersons has no facilities for storing gas and so controls its flow by the valve at the wellhead. The gas produced is usually drawn off because the company is looking for the greatest possible electricity production. As we have already mentioned, Patersons' permit contains no requirement that it generate electricity from methane extracted from landfill gas at the Site. As we understand it, the carbon dioxide content of landfill gas is of no use to Patersons, and is released into the atmosphere.

72. The work carried out by Mr Selvey includes the monitoring of gas production which larger operators of landfill sites, such as Biffa itself, remotely carry out using computers for the purpose.

Electricity generation

73. At some time in the 1990s, Patersons, which had previously been asked by a company interested in electricity generation whether it was interested in energy production from landfill gas, itself commissioned a feasibility study into the potential for revenue from electricity generation at the Site. The resultant report indicated that the quantity and quality of landfill gas produced at the Site was suitable for use for power generation.

74. One section of the report indicated that under the Electricity Act 1989, as supported by a framework of Renewables Orders, there were Government incentives

encouraging power generation. (In Scotland such Orders are known as Scottish Renewables Orders, or SROs). This was helpful to Patersons as the relevant SRO provided a mechanism under which an electricity generator could enter into a contract for electricity generation providing a premium tariff, linked to the Retail Price Index, over a guaranteed period of between 15 and 20 years.

75. Patersons concluded from the report that, although the necessary infrastructure would be costly, power generation could prove profitable for it. It therefore decided to apply for an SRO contract. To obtain such a contract, a contractor was required to submit a bid as to the price at which it would be willing to supply electricity. The bid document had to identify the infrastructure to be used to make the supply and the bid had to be equal to or lower than the offer price to be successful.

76. Patersons first bid was unsuccessful, but in 1999 it successfully made a second bid. It was then required to, and did in fact, make a considerable investment in gas engines, grid connection and personnel. Initially Patersons purchased four gas engines, but has since purchased a further four.

77. The 8 engines which Patersons uses to generate gas are Jenbacher J320 internal combustion piston gas engines. The Jenbacher is the only engine on the commercial market designed specifically to be fuelled by gas. They are the most expensive on the market, and were purchased by Patersons for their reputed reliability and quality. As we mentioned earlier, Patersons purchased the engines in two groups of four. Each engine generates 415 volts which are transformed, i.e. increased, to a voltage of 11,000. The electricity is then supplied by means of underground cables to a nearby sub-station and through to the National Grid.

78. On 30 June 1999 Patersons was granted planning permission for the "installation of waste gas to energy generation plant."

79. As Patersons had no connection from the Site to the National Grid at the time, it had to arrange for a connection to the Grid by underground cables. On 8 September 1999 Scottish Power wrote to Patersons setting out the details of its generating plant connection to the Scottish Power Distribution System.

80. Evidence was adduced, and we accept, that Patersons has spent some millions of pounds in setting up its electricity generating capacity including purchasing the gas engines and connecting the whole electricity system to the National Grid. We were not provided with full details of the monies so expended, but agree with Mr Cordara that the details are of little or no matter.

81. We find that prior to 1999 Patersons had no intention commercially to exploit methane produced at the Site. Nevertheless, material the company sent to landfill before that year continues to produce methane. In our judgment, a decision the company claims to have made in 1999 generally to exploit all waste in the Site cannot transform a pre-1999 decision to discard material into an intention not to do so.

82. Also in our judgment, the gas extraction infrastructure which Patersons has put in place on the Site was primarily installed to satisfy its regulatory legislative

obligation to provide it. We find it to be essentially the same as if the landfill gas was being flared rather than used.

83. On 31 December 2005 Patersons contracted with NFPA Ltd for the supply of electricity to the relevant connection point and undertook to make the supply available to the contracted capacity throughout the terms of the agreement between the two.

84. Electricity generation has proved extremely profitable for Patersons, and it now makes twice as much profit therefrom as it makes from tipping by waste contractors.

The gas compound

85. A single pipe feeds gas into a compound in which Patersons has installed its 8 electricity generating engines. The pipe is connected to each one engine. Upon entry into the compound the pipe divides into two, and each feeder pipe is attached to a separate flare stack. The stacks are required for the burning of methane should the electricity generating engines fail.

86. Each flare stack has a pilot light which ignites should the flare stacks be required. The pilot lights in turn ignite the main flame. The flare stacks are flared very rarely, and then only as part of a maintenance check or when there has been a full shutdown of the gas plant.

87. Each of the four older engines has a power output of 1006kW, and each of the four newer ones, 1065kW. Each engine has an electronic control panel which provides diagnostic information such as the engine's temperature, pressure and electrical output. The engines are started, or loaded up, gradually for safety reasons.

88. Like the pipework, the gas engines require constant maintenance to ensure their maximum efficiency, and for safety reasons. Every 5 weeks, or after each 1000 hours of use, Patersons stops each one, changes its spark plugs, oil and filters, and undertakes any necessary minor repairs. After 20,000 hours of use, an external contractor strips down each engine and replaces any major faulty parts. And after 40,000 hours of use such contractor undertakes a complete overhaul of each engine.

89. If an engine stops for any reason, e.g. because of a power cut, it is programmed to call Mr Selvey or his assistant, depending on which of them is on duty. The duty engineer reports to the Site immediately and restarts the engine. If an engine is turned off it is necessary to flare the gas, and to ensure the shortest break as possible in electricity generation.

90. The engines are most efficient when run at full power. If there is not enough methane to keep all 8 engines running at maximum power, Mr Selvey is required to ensure that the number of engines running at full power reflects the total amount of methane available.

91. The electricity demands of the Site, such as for the pumps and site office, are met from the electricity generated by the engines, and it is the remaining electricity generated that is sold to the National Grid.

92. At the time of the site visit only 5 of Patersons' 8 gas engines were operating, the Site producing insufficient methane to power the other three. We were told, and accept, that Glasgow City Council has recently awarded a contract to one of Patersons' customers for the collection of domestic waste, and the company hopes that customer will use the Site to deposit at least some of the waste concerned. Domestic waste containing more putrescible material than industrial and commercial waste, Patersons also hopes that the Site will in future produce more methane and enable it to power all its gas engines. In the past the Site has produced sufficient methane to power all 8 engines simultaneously.

Operational process

93. Waste contractors bring to the Site material of which they wish to dispose using purpose-built vehicles licensed and regulated by SEPA. Each such contractor holds a waste carrier's licence. The Control of Pollution Act 1989 and the Controlled Waste Regulations 1991 impose a duty of care on the person holding the waste and require the transfer of waste to be documented on a waste transfer note. In Scotland the waste transfer note is required to indicate the type of material to which it relates by reference to an EWC code, a European code designed for the purpose. The driver of the vehicle bringing waste to the Site normally brings the waste transfer note with him and on entry hands it to Patersons' weighbridge operator.

94. The weighbridge operator is responsible for making appropriate checks on the contents of each vehicle's load to ensure that it corresponds to the description on the waste transfer note, and that the customer holds a waste carrier's licence. As Patersons deals only with customers with whom it has a contract and is aware of the licences each holds, the latter requirement is a formality.

95. Patersons is not authorised to receive hazardous waste at the main part of the Site, and if any such material is identified by the weighbridge operator the load is 'quarantined', i.e. removed to and placed in a specially licensed cell.

96. Once the weighbridge operator is satisfied that he may accept a load, he issues the vehicle's driver with a weighbridge ticket and instructs him to proceed to the tipping area. If the material consists of building or similar waste, so that the entirety of it is capable of being recycled, it is deposited on a particular area of the Site where recycling takes place. All other material is taken to what is known as the 'transfer station'. That is a holding area where material is tipped before being transferred in Patersons' own on-site specialist dumper trucks to other parts of the Site. It is common ground that, ignoring material designated as recyclable on its arrival at the Site, Patersons takes ownership of the material provided by waste contractors on its being deposited at the transfer station: it then has title to the waste when it moves the material and places it in landfill or otherwise deals with it.

97. At the transfer station, or void, there are two separate areas, one which accepts waste mainly or exclusively destined for landfill, and the other waste some of which is capable of being recycled, using that word in the sense of extracting already existing material merely requiring physical separation from that destined for landfill.

Patersons has a recycling plant which mechanically sorts waste in the latter category, and also has a group of men who manually extract from the remaining material that which is recyclable. Wood, metal, clean cardboard, bricks and stones, all being recyclable, are extracted and are sold off the Site for further reprocessing. The rest of the material is sent to landfill. It is impossible to say what percentage of that material will prove biodegradable. As we mentioned earlier, Patersons is entitled to recover the landfill tax paid on material which proves to be recyclable, and makes its claims in that behalf based on the weight of material concerned.

98. It is from the material sent to landfill that landfill gas, and hence methane, is produced. The production process requires no action by Patersons; the decomposition process is triggered by the deposit into landfill. Material decomposes at different rates so that some produces landfill gas in a matter of weeks, whilst other takes much longer for the degeneration process to begin. But when decomposition has begun, it continues for a lengthy period of time – a period which it is impossible to calculate, but which may extend to 50 or more years. Nor can it be said what quantity or quality of methane will be produced by any given load of waste material deposited into landfill; if either quantity or quality prove insufficient to drive Pattersons' gas engines it will not be used, unless it can be combined with other methane of good quality and in sufficient quantity.

99. When empty, delivery vehicles leave the Site, again passing over the weighbridge. On the return journey their tare weight is recorded and compared with the gross weight on entry. As the contracts with most of its customers are of a rolling variety, Patersons invoices its customers monthly, including on each invoice landfill tax at the standard rate on all waste deposited.

The terms of Patersons' contracts for landfill

100. With the exception of a written contract with Biffa Waste Services Ltd ("Biffa"), a major waste contractor, Patersons does not have written contracts or standard terms and conditions on which it deals with others of its customers who wish to deposit waste material at the Site. But it has negotiated an individual price for the deposit of material with each regular customer. The customer's agreed price for each category of waste, which takes account of its potential to produce landfill gas, is entered on Patersons' computer system, and is applied in calculating the customer's monthly invoice.

101. Patersons' contract with Biffa, which is personal to that company, represents some 50% of Paterson's waste business at the Site. It commenced on 30 March 1998. The recitals to the contract provide as follows:

> "(A) The Site Operator [Patersons] operates the Landfill Site known as the Greenoakhill Tip ("the Landfill Site"); and
>
> (B) Biffa and the Site Operator have agreed arrangements for the delivery by Biffa to the Landfill Site of domestic, commercial and industrial waste and other

controlled waste (other than Clydesdale Waste) on the terms and conditions aftermentioned."

Para 3.1 of the contract provides that "During Normal Working Hours [as defined] throughout the Period of this Agreement Biffa shall be entitled to deliver domestic and/or industrial waste (including controlled waste) to the Landfill Site for disposal and subject always to Biffa making payment of all sums due under this Agreement the Site Operator shall accept the Waste". At para 3.4.4. Biffa is required to comply with the Licence for the Site and Regulatory Requirements, again as defined. By para 5 of the contract, Biffa is required to dispose at the Site a minimum percentage of the waste it collects from a defined geographical area.

102. We find that sums paid by Biffa under para 3.1 of the contract are for tipping waste. And on the basis of the recitals to, and those of the contents of, para 3 of the Biffa contract to which we refer above, we also find that Patersons agreement with Biffa is to receive waste from the latter and to deal with it as such; it is not to receive that waste as electricity generating fuel. We further find that the parties act on the terms of that contract.

103. The contract also requires Patersons to offer Biffa its best market price for waste, so that it cannot charge Biffa more than the lowest price it charges any of its other customers. Patersons maintains that has been a commercial constraint on its electricity production business, and will remain so until the Biffa contract expires in 2013.

104. Whilst, as we have said, Patersons contracts with the remainder of its customers have not been reduced to writing, we are satisfied, and thus find, that, excluding price, which is the subject of negotiation with individual customers, it deals with all its customers on terms very similar, if not identical, to those on which it deals with Biffa. No evidence was adduced from those customers to indicate that any one of them contracted to supply Patersons with waste material for energy generating purposes and, in its absence, notwithstanding claims to the contrary by messrs Paterson, we are not prepared to accept that the company receives waste material from any of them on terms different from those on which it receives waste from Biffa.

Miscellaneous facts

105. There are a number of miscellaneous findings of fact we must make that are relevant to Patersons' intention with regard to the disposing of material.

106. We are satisfied, and thus find, that a great many steps taken by Patersons in connection with the operation of the Site which it maintains to be evidence of its intention not to discard material disposed in landfill are necessary, or are required, to comply with its site permit or its regulatory obligations. Indeed, we are unable to identify anything it does beyond powering and supplying its gas engines with methane as not being a regulatory requirement. In order that there may be no dispute as to the actions to which we refer, we list below the specific findings of fact we make, and indicate the persons on whose evidence we rely for the purposes.

107. Many of the steps concerned are carried out by Mr Selvey. He admitted to performing his duties in accordance with the Site permit, and consistently with the Regulations to which the Site is subject. Amongst other matters Mr Selvey dealt with in evidence he accepted that:

1) the need to monitor landfill gas collection is a requirement of the Site permit, safety and environmental regulations;
2) Patersons is obliged under the Site permit, and other regulations, to prevent gas migration;
3) the Site permit requires Patersons
    a. to create sealed cells, and to contain and cap them;
    b. to install in each cell an impermeable base layer;
    c. to place aggregates on inert material above the base layer to act as a drainage layer;
    d. to manage leachate; and
    e. to cap each cell

108. Mr Selvey admitted, and we find, that Patersons' gas collection system is what he described as "bog standard", and contains no features taking it beyond "the norm for discharging [Patersons'] obligations to capture the gas." He further admitted that, in so far as Patersons is converting methane into electricity, it is discharging its obligations under the Site permit. Mr Selvey yet further accepted that:

1) each of the features Patersons' gas collection infrastructure would have been necessary, even had there been no gas engines on site:
2) preventing gas escapes is a regulatory requirement, as is that of preventing moisture entering cells;
3) preventing air being drawn into cells by negative pressure is a regulatory requirement;
4) balancing gas flow is "part and parcel" of a landfill site's operation, and is an obligation under the Site permit;
5) the construction of the network of pipes is concerned with the obligation to capture landfill gas;
6) the pipe collection network is necessary, whether there are engines on the Site or not;
7) the need for manifolds is "part and parcel" of the monitoring and balancing obligations and they are necessary regardless of whether there is conversion into electricity;
8) isolation valves are also necessary whether or not there are engines on the Site;
9) knockout pots are necessary irrespective of whether there are gas engines generating electricity;
10) pumping is the standard, indeed the only, way of capturing gas from the Site;
11) when carrying out inspections, he is "essentially discharging an obligation of [Patersons] under … part of the [Site] permit; and
12) Patersons is obliged to manage leachate

109. Mr Paterson junior accepted that Patersons has to liaise with the regulator on a regular basis with regard to costs, and that dealing with frozen pipework is part of the company's regulatory obligation.

110. Finally, Mr Grantham admitted that "there are very strong drivers to ensure that gas migration is minimised". He also accepted that:

1) "it is part of [Patersons'] regulatory obligations to take steps to avoid wind blown litter";
2) "it is a regulatory requirement [for Patersons] to employ staff to manage its fields";
3) "it is part of [Patersons'] obligation to provide effective gas management with effective monitoring and balancing"; and
4) Patersons has "an obligation to monitor the quality of the gas".

Calculation of Patersons' claim

111. Mr Grantham explained how Patersons had calculated its tax repayment claim as set out in the First Schedule to our decision saying that it had sought to identify the weight of biodegradable mass within the waste deposited at the Site which would produce landfill gas. Its claim was based on assumptions that each load of domestic waste is 44.61% gas producing, commercial waste is 67.89% gas producing, industrial waste is 32.6% gas producing, waste that is 50% commercial and 50% industrial is 50.25% gas producing, and waste that is 60% commercial and 40% industrial is 53.77% gas producing. Those assumptions were made in part on the basis of scientific and statistical data. The methodology used was the same as that used for the purpose of operating GasSim, a risk assessment tool developed for the Environment Agency by Envirocentre (and endorsed by the SEPA) which is said to indicate how much gas should be produced at a particular site. GasSim is one of three risk assessment tools used in the landfill industry. Each tool produces fairly similar, but not identical results. We were not told why Patersons chose the GasSim model in preference to one of the other two. Comparison of the estimated gas production at an unidentified site with that actually obtained showed that in 2009 there was a discrepancy of 10% between the gas produced and the estimate, that discrepancy being attributed to ordinary inefficiencies in the collection network by Envirocentre. Patersons claimed that it intends to maximise the amount of gas it captures to produce electricity, but accepted that its collection infrastructure was not 100% efficient. It also disclosed that the basis of its claim was for the material which produced landfill gas, and not on that of the volume of gas that could be captured.

112. In cross-examination, Mr Grantham accepted that the reliability of the GasSim model, which deals with annual amounts, rather than individual loads, of material, is the subject of serious scientific debate.

113. He explained the GasSim model as having two aspects: those of the content of the raw material sent to landfill and the site conditions "in terms of the size of the cell". We should add that we find that Patersons does not feed the EWG codes

identifying the material sent to landfill into the model used to calculate the tax it seeks the Commissioners to repay; they are completely ignored.

Submissions for the Commissioners

114. Mrs Hall rejects a contention by Mr Cordara that the cases of *Parkwood* and *WRG* are binding on the tribunal for the proposition that the use Patersons claims to make of biodegradable material it puts into landfill is conclusive of its intention not to discard material at the point of disposal. She maintains that Patersons' interpretation of the two Court of Appeal judgments is one of the most flawed features of the appeal: the facts with which the Court of Appeal was concerned, and the assumptions on which its statements of principle were based, differed substantially from the facts and principles with which the instant appeal is concerned.

115. She focuses first on the word "material" in section 40(2)(a) maintaining that material must have mass, must occupy space, must be something capable of disposal, and must be physical and perceptible to the senses as a tangible substance. Mrs Hall maintains that material must meet those criteria is apparent, not just from s.40(2), but from many other parts of Part III of the 1996 Act. For instance, since by s. 42(1)(a) landfill tax is payable by the tonne, it must be capable of being weighed. In s.43(4)(a) reference is made to "naturally occurring mineral material", and by s.43A, which deals with contaminated land, material must be something capable of being removed from one part of the land to another part, implying that the thing under consideration must have a physical presence. By s.44(3), quarrying and mining material which may be excluded from the tax must be "naturally occurring material extracted from the earth". By s.64(1), whatever the material is, it must be capable of disposal, and only a tangible, measurable thing can be the subject of a disposal. By s.65(1) material must be capable of being deposited on or under the surface of land, or on a structure set into its surface. Section 68 provides for regulations to determine how the weight of material disposed of shall be calculated.

116. Mrs Hall contends that it is important to note that s.42 prescribes the amount of tax "per tonne" for three reasons:

(a) If Parliament had intended landfill tax not to be payable in respect of a portion of material deposited into a landfill site, it would have provided some mechanism for calculating the deduction to be made at the point of disposal. No such mechanism was needed in cases such as those of *Parkwood* or *WRG* because the diverted tonnage of material used by landfill site operators in those cases was readily identifiable.

(b) The s.40(2) conditions must all be met at the time the material is put into landfill. It is at that point that the question of intention must be answered by reference to an identifiable tonnage of material. But it is impossible at that or any other stage to identify the tonnage of material sent to landfill that will produce methane. Further, what Patersons is exploiting commercially is not the material itself but methane, which does not exist at the point of disposal.

(c) A necessary corollary to Patersons' case is that it had an intention to discard an unascertainable proportion of material at the time of deposit (which meant that it could properly be classified as waste), but had no such intention with regard to the equally unascertained balance (which meant it could not be so classified). Mrs Hall submits that such a proposition is absurd, having regard to what actually happens on the Site, and is not one that fits the overall scheme of the legislation. That absurdity is compounded by the fact that methane is being produced by degrading material which was in the Site before landfill tax came into existence. Parliament could not have intended to impose the tax on material the history of which it would be necessary to check to ascertain whether anybody had the required intention.

117. What Parliament meant by "material" must be put in context by considering the reasoning the Court of Appeal deployed in dealing with the issues in *Parkwood* and *WRG*. Mrs Hall maintains that the facts of those two cases could not be further removed from those of the instant case: Patersons uses something, methane, that does not exist at the time of deposit. The tribunal can deduce nothing of any real value from the two judgments because the assumed premise of the Court of Appeal's reasoning in each of those cases, the existence of something physical and perceptible, was that it had mass, occupied space, and was diverted from landfill.

118. Mrs Hall notes that neither judgment addressed the key issue in the instant appeal: that only something which physically exists can be put on or under land. Parliament had already singled out for special consideration the distinction between active waste, biodegradable waste, on the one hand, and inert waste on the other. She submits that had it been Parliament's intention to exclude the use of methane generated by the biodegradation process from the scope of the tax, it would have done so. She accepts that Parliament laid the foundation for such a finding in s.42(4), but claims that it limited special treatment to special categories of waste, namely biodegradable or inert, to the rates of tax to be applicable to them.

119. Next, Mrs Hall turns to what she describes as the "all important" s.64, first accepting the relevant intention in the instant case to be that of Patersons. She invites us to note the definite article in s.64(1) – *the* intention to discard, not *an* intention to do so and – submits that, on the facts of the instant case, there can be only one intention per disposal; the concept of having two or more intentions with regard to the one disposal is meaningless. Three concepts are engaged here: those of waste, intention, and discarding.

120. Mrs Hall explains that the Commissioners rely on what they contend to be Patersons' primary intention with regard to material deposited as landfill. In the absence of any authority on the point, she submits that is a perfectly coherent way of seeking Parliament's intention. Landfill site operators will typically have multiple intentions when material is put into landfill, some of which will be secondary or immaterial. The intention to make a profit and the intention to create a landscape which is suitable for the proposed end use of the site may both be present, but would not be material because they would be classified as secondary or ancillary. Further, Article 3(19) of the revised Waste Framework Directive 2998/98/EC provides that

"disposal" means ". . . any operation which is not recovery even where the operation has a secondary consequence the reclamation of substances or energy". "Recovery" means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function in the plant or in the wider economy". And, as mentioned in the Second Schedule to our decision, since landfill tax is a domestic initiative aimed at protecting the environment and securing the ambitions of EU Council Directives on waste in dealing with the legislation concerned, Mrs Hall submits that it is necessary to have regard to the broader EU context.

121. What Mrs Hall claims to be important from the case law is that material is waste if the person making the disposal intends to cast it aside, reject or abandon it (see [33] of the judgment of the Chancellor in *WRG*). However, the word "waste" in s.64(1) cannot be considered in isolation; it has to be the subject of a composite analysis. An intention is that someone plans or intends to do in relation to something which, at the moment the intention is formed, is identifiable. The relevance of that on the facts of the instant case is, according to Mrs Hall, that at the point of disposal no methane exists in the material disposed of, and Patersons accepts that some of the material will never convert into landfill gas.

122. Further, in the instant case there are a number of unknown factors in relation to material: what percentage of it is biodegradable? how much methane will be produced by a particular load of waste? when will production of methane start? when will production stop? how much of the biodegradable material will degrade? and how much methane of suitable quality will be enough to drive an engine? Mrs Hall contrasts those factors with the facts of *WRG* and *Parkwood* where in each case the landfill operator could stand at the void and determine that a particular deposit, which was eminently tangible, identifiable and weighable, would be used as daily cover or to build roads.

123. Mrs Hall further contends that the accuracy of the GasSim model is the subject of serious scientific debate, so that Patersons cannot accurately determine exactly what it is putting into the ground. The whole notion that Patersons intends to use something in a way that it is obliged to do in discharging a regulatory requirement is not the sort of use that Parliament had in mind. Even if the facts are considered separately from the law, where is the engineering of the Site devoted to producing methane, as opposed to collecting it? In the Commissioners' judgment, there is none.

124. In relation to discarding, Mrs Hall accepts, on the basis of the judgments in *WRG* and *Parkwood*, that to "discard" material does not include its use. She adds that in the instant case material which enters the Site as waste occupies space in it in exactly the same way as it occupies the space if the methane produced is not used to generate electricity; the settlement will be the same regardless of whether Patersons converts the methane into electricity. That goes to the question of whether Patersons can bring itself within the *WRG* case, which excludes the retention of material in addition to use. In the instant case, the material is not retained by Patersons, but is put into the void; in WRG the material was retained and put on the roads.

125. Mrs Hall then turns to deal in detail with the *Parkwood* case, observing that the Court of Appeal was there concerned with (a) recycled materials which were (b) purchased and used for landscaping and road making purposes. At [20] to [28] of its judgment the Court concluded that to tax recycled material in circumstances where that material had been used for road making and the like at landfill sites would be contrary to the Finance Act 1996. It was against that background that the Court concluded at [23] that the tax is a landfill tax and not a landfill and recycling tax, so that Patersons' reliance on that paragraph is misguided. The Court's conclusion was amplified at [28], Aldous LJ saying "The purpose of the legislation was to tax waste material deposited at landfill sites and not to tax deposits at landfill sites of useful material produced from waste material." Mrs Hall notes that those two facts significantly informed the reasoning of the Court, adding that the use to which Parkwood put the material is the first obvious point of distinction between that case and the instant one; in the former there was an obvious physical, tangible use of the disputed material whose existence was never in doubt – a use totally absent in the instant case.

126. The other headline point of distinction between the two cases identified by Mrs Hall is obtained from [5] to [8] of *Parkwood*, namely that a recycling company sold aggregates and fines to *Parkwood* to use at its landfill site for road making and landscaping at a price of £2.50 per tonne: the commercial objective of the transactions was to enable *Parkwood* to do the very thing it actually did with material bought for that purpose. She submits that that contrasts sharply with the economic and commercial circumstances surrounding the acquisition of material in the instant case.

127. Mrs Hall further submits that the distinction between the facts of the two cases is very important, as the Biffa contract shows. Biffa is not selling waste to Patersons as fuel for its energy production business; it pays Patersons a tipping price as a landfill site operator, and the material comes into Patersons hands as Biffa's waste. Some such material goes to landfill; some is recycled out. That Patersons has the intention of acquiring the Biffa waste for landfilling purposes is capable of deduction in the absence of evidence to the contrary. In Mrs Hall's submission, that is a key factual distinction between the instant case and that of *Parkwood* which went to the essence of the Court's reasoning in the latter

128. Mrs Hall next observes that at [9] of its judgment the Court of Appeal looked at the EU context of landfill tax, but notes that Council Directive 75/442, to which the court referred, had already been amended by the time the Court gave judgment, so that its reference was incomplete and incorrect. Nevertheless, the Court of Appeal had no difficulty in putting the landfill tax into what Mrs Hall describes as "its broader European context".

129. Nothing Patersons does reduces the amount of waste going to landfill; it acknowledges that some recycling takes place before the point of deposit, but admits that all of the remaining material goes to landfill and becomes part of it. The reasoning of the Court of Appeal cannot therefore be transposed on to the facts of the instant case.

130. If Parliament had intended the commercial exploitation of methane, which Mrs Hall maintains to be an inevitable by-product of the process of biodegradation, to fall outside the scope of landfill tax one would have expected there to have been a clearer indication in the legislation. That there is no such indication suggests that Parliament did not intend to exempt anything approaching that which Patersons is doing.

131. Mrs Hall also submits that the material which Patersons sends to landfill is not recycled; it is put into the ground. Nor is the methane produced as a by-product of the degradation of the material the sort of recycling to which the Court of Appeal was referring in *Parkwood*.

132. Accepting that landfill tax is designed to promote recycling, Mrs Hall further submits that the reasoning at [27] of *Parkwood* was predicated on the material there in issue being tangible, physical material; and that methane was not the type of material the Court of Appeal had in mind. Methane does not exist at the time material is disposed of, and when it subsequently comes into existence it cannot be classified as material in the sense used by Parliament in Part III of the Finance Act 1996.

133. Next, Mrs Hall deals with *WRG*. In that case the Court of Appeal held material set aside for daily cover not to be liable to landfill tax. As in Patersons' case, cover was set aside for the purpose; it was retained. However, Mrs Hall submits that the Commissioners' case does not turn on retention or no retention, but rather on the lack of any recognisable use of the material.

134. In *WRG*, Mrs Hall claims the Court of Appeal to have been influenced by the fact that the material under consideration was merely deposited on the landfill site. The Chancellor's view that Parliament may not have intended such material to be taxed was tempered by a submission by *WRG* that the material was disposed of by way of landfill, see [31] of his judgment. However, he clearly had doubts as to whether there had been a disposal at all, and simply assumed that there had been, see [33]. The fact that the inert material under consideration had been (a) retained by *WRG* in the sense of being held or kept back from the landfill, and (b) used in the same state for the purposes of WRG, in Mrs Hall's submission, meant that the material itself had not been discarded in the sense of "cast aside", "rejected" or "abandoned", see [33]. She contends that in such cases there is no disposal, or no disposal with the intention of discarding the material. She adds that the Court of Appeal did not address the situation that arises in the instant case where (a) the active material for which the credit is sought is not kept back from landfill, and (b) the material is not physically used by Patersons.

135. The material in point in *WRG* was inert. Mrs Hall submits that Mr Cordara's proposition that the tribunal is bound by the Court of Appeal's reasoning in that case in circumstances where it was dealing with material which had exactly the opposite characteristics to the material in point in the instant appeal is very difficult to sustain.

136. Then, in *WRG* there was a finding that the group was actively seeking the supply of materials needed for construction purposes. In Mrs Hall's further

submission what Mr Cordara is seeking to do is to copy and paste that notion into Patersons' case. She contends that no relevant point arises from its so doing.

137. As revealed by [16], [23], [26] and [35] of *WRG*, Mrs Hall notes that in that case it was held to matter not by what means and on what terms WRG acquired the material; it was put to a use not contemplated by the Finance Act 1996. In the instant case, the economic circumstances surrounding the acquisition by Patersons of material are reflected in the Biffa contract, and show that it is receiving and acquiring Biffa's waste in its capacity as a landfill site operator. (In this context and in others of her submissions, Mrs Hall uses the "Biffa contract" as shorthand for Patersons' contracts with all its customers who bring waste materials to the Site).

138. Mrs Hall identifies [34] and [35] of *WRG* as important, the Chancellor indicating three possible circumstances in which an intention may be said to have changed; recycling, re-use, and the possibility of the economic circumstances surrounding the acquisition of the materials in question by the ultimate disposer of them possibly casting light on his intention at the relevant time.

139. She submits that for a number of reasons the instant case differs from *WRG*, and in not being is not one of a change in intention. First, it concerns material completely different from that in point in *WRG*. Secondly, a relevant intention for the purpose of s.40(2)(a) cannot be generated by reference to a commercial decision Patersons claims to have made in 2000 to exploit the methane in landfill material, so that Patersons' intention with regard to that material ceases to exist; it is subsumed or diverted. That she maintains is sufficient for the Commissioners' purposes, but there is more.

140. If that intention had really continued throughout the period 2000 to 2006, the terms on which Patersons dealt with Biffa and its other customers would have changed; the circumstances surrounding the acquisition of material would not have been those described in recitals A and B to the Biffa contract, but rather that Biffa provided fuel for Patersons electricity generating business. That circumstance is relevant to intention. At the critical point when Patersons receives material at the void, it comes to be landfilled. Mrs Hall contends that that is entirely inconsistent with the suggestion that the intention to use it for electricity generating purposes continues at that point; it clearly does not. Patersons receives the Biffa waste with the intention of landfilling it; that is why it charges Biffa a tipping price.

141. Patersons receives waste for a variety of purposes, some for recycling, some for daily cover, some for fluff, and other for basal engineering. But Mrs Hall maintains that over-arching intention is fractured soon after material arrives on site; the intention goes off in different directions with different fiscal consequences.

142. The instant case is not one in which use can be described as conclusive of Patersons' intention. In Mrs Hall's contention, Patersons claim that its case is analogous to that of *WRG* is a profound perversion of the reasoning of the Court of Appeal in that case, the judgment being far removed from the facts of the instant case and the legal principles engaged.

143. In conclusion of that section of her submissions dealing with *Parkwood* and *WRG* Mrs Hall contends that the determinative issues in the instant appeal have not been addressed by any court or tribunal.

144. Next, she submits that since methane is a by-product of a process which takes place subsequent to disposal and does not exist at the point of disposal, it cannot be said that the material producing it is recycled: it is the methane, and not the material, that is converted into electricity.

145. Mrs Hall then deals with a number of points arising out of the notice of appeal. First, she observes that the settlement of the material on the Site is the same whether the methane is flared or used. She does so against a background of a claim by Patersons in para.6 of its notice of appeal that "Material which generates landfill gas is not waste". She particularly notes that it is the material itself which is said not to be waste. At para.7 of the notice of appeal, Patersons claimed that "The gas producing material is recycled within the landfill site and the appellant intends that this should be the case". At para.9 it added, "The material is not disposed of as waste, as defined in s.64, because the site operator intends that it, the material, will be used to create landfill gas". Mrs Hall claims that para.9 indicates a different intention on the part of Patersons – namely that the material will create methane. Against that background Mrs Hall claims para.9 to show that Patersons appears to have no intention to use the material discarded; the material itself will create the methane. She refers to the Commissioners' claim on the point, to be found at para.34 of the amended statement of case:

> "The purification process and the production of landfill gases are both natural and inevitable consequences of allowing biodegradable material to rot. The material remains in the same location and decomposes to the same state. Whether landfill gases are used to generate electricity or not the material is not used for any other purpose."

146. Mrs Hall then deals with what Mr Cordara describes as the "passivity point". He claims that the fact that material remained untouched and unprocessed did not concern the Court of Appeal in *Parkwood* and *WRG*. In response, Mrs Hall replies that it would have done so had the instant case been before the court. She maintains that Patersons' claim that it has a further use for the material on its being deposited into landfill is incorrect; the company has no further use for the material for it produces methane without any intervention whatsoever.

147. Dealing next with the "temporal element" identified by Mr Cordara– that a disposal is something which takes place when the material is put into the operative part of the Site, that being the moment when the four conditions in s.40(2) are met - Mrs Hall accepts that those parts of the waste used for daily cover, fluff, etc, cease to be waste in Patersons' hands on being so applied, but observes that the appeal is not concerned with such material, but rather with that going into the void; and it is at the point that it does so that the four conditions have to be satisfied.

148. Mrs Hall maintains that the fact that the person making the disposal can benefit from or make use of the material is irrelevant to the question whether there is an intention to discard the material, see s.64(2); all the material disposed of by Patersons during the claim period was disposed of as waste. There was no retention of the waste, and it was not put to any relevant use at the point of disposal. Further, at the point of disposal the potential for commercial exploitation was speculative. By way of example, Mrs Hall states that the methanogenic property of the material is in many instances significantly dependent upon the volume and profile of subsequent disposals to landfill, neither of which can be predicted with any certainty. She submits that the speculative possibility of extracting unquantifiable amounts of methane from a given tonnage of waste deposited at a particular moment is irrelevant to the question whether there is an intention to discard. The very process of discarding is a necessary pre-condition to methane extraction. Since the commercial exploitation of methane is the only obstacle to an adverse finding on intention, and since the mere possibility of a related financial benefit is irrelevant, Mrs Hall submits that that benefit cannot be relied upon by Patersons to justify the existence of an intention to discard, and the company is left with nothing to support its case on intention.

149. Mrs Hall then submits that any "so-called" intention in relation to waste that has been in landfill for some time can only be to await nature taking its course on the material: there can be no intention for biodegradable material to produce landfill gas; the process is inevitable. In this connection, Mrs Hall refers to two statements made in evidence by Mr Selvey : "Gas generation can be quite unpredictable; it is affected by lots of things", and "Atmospheric pressure can affect gas production". She also makes reference to statements made by Mr Paterson junior to the effect that Patersons business plans change with the regulatory, economic and commercial background, and that taxes are eroding its business model.

150. Mrs Hall next challenges Patersons' claim that its overarching intention was intact during the claim period, noting that *Parkwood* indicates that intention is determined not at the point of receipt of waste, but at the point of deposit. She claims there to be nothing to indicate Patersons' intention as being otherwise than as revealed by economic circumstances surrounding the Biffa contract. She submits that the very mechanism by which Patersons receives material from Biffa never changes: it is received in the company's capacity as a landfill site operator and, with regard to the balance remaining after recycling, is put into landfill. Consequently, Patersons' overarching intention is subsumed by, diverted or broken by, the Biffa contract: nowhere in that contract does Biffa say, "We will supply you with fuel as the raw material for your energy production site".

151. There is no authority for the claim by Patersons that the existence of its physical or commercial infrastructure is sufficient to demonstrate use, and certainly not in either *Parkwood* and *WRG*, which concerned the actual use of physical materials. In Mrs Hall's submission the profitability of a venture cannot determine whether it is within or without landfill tax, particularly where profitability shifts and changes with the environmental, physical, commercial and economic context.

152. Patersons has a regulatory duty to use the methane produced at the Site, and discharges its regulatory obligation in doing so. Mrs Hall contends that it cannot re-characterise that obligation as commercial exploitation. To claim, as Patersons does, that Parliament intended to exempt from landfill tax the very thing that the company is obliged to do because it expends money on it and makes profit out of it, is totally counter intuitive; it would defeat the very object of the tax which, as the Court of Appeal confirmed in *Parkwood*, is to encourage recycling and to discourage putting material into the ground. Putting material into the ground is the very thing Patersons does, and for which it is seeking credit. To allow the appeal would emasculate the tax.

153. The story of the re-use of material in regulatory legislation starts with the Council Directive 1999/31/EC on the landfill of waste, to which legislation Mrs Hall invites us to record that she does not refer thereto for the purpose of construing the words of Part III of the Finance Act 1996. She claims that the Directive goes to the question of whether, by converting methane into electricity Patersons is discharging a duty to do so or whether, as the company claims, it is doing so with the intention of commercially exploiting the methane. In Mrs Hall's submission, the present is a case where, in discharging its statutory obligations, Patersons' action is masquerading as commercial use.

154. As is stated in Patersons' gas management plan, the company is "committed to maximising the use of the gases generated by the degrading waste in line with the requirements of the Landfill Directive." Mrs Hall submits that a claim by Patersons that its commitment in that behalf goes directly to commercial intention should be rejected.

155. In the event of our being persuaded that Patersons intends not to discard the material, Mrs Hall submits that its intention is either diverted or not consummated. In so far as non-consummation is concerned, "the Biffa contract says it all". Had it really been consummated, a change in the terms and conditions of the Biffa contract would have been expected. There was no such change.

156. Mrs Hall then makes a number of points on s.70. First, she reminds us that "material" means "all forms of material". Then, she notes that article 1 of the IPPC Directive sets out the Directive's purpose and scope, in terms "To achieve integrated prevention and control of pollution arising from the activities listed in Annex 1", and at article 9 provides that: "Member states shall ensure that the permit includes all measures necessary for compliance with requirements of articles 3 and 10 for the granting of permits".

157. By reference to events at an incineration plant, where material goes into a machine and is burned to produce energy, Mrs Hall maintains that had Patersons been involved in energy production, the tribunal would have been provided with evidence of such production. No such evidence was adduced. Rather, all the evidence points to the company being a landfill business making a profit out of that which it is obliged to do for regulatory purposes.

158. Next, Mrs Hall deals with the Landfill Regulations 1996, implemented pursuant to powers contained in the Finance Act 1996. She observes that the Regulations deal with site operators, such as Patersons, who have already accounted for tax because there has been a taxable disposal; tax is payable even if the disposal was made with the intention of recycling the material concerned. Parliament decided that in those circumstances, notwithstanding a site operator's future plans for material disposed of, tax is payable because a taxable disposal has taken place. Only when material has been recycled or removed in accordance with an intention at the time the disposal was made may a credit be claimed. Mrs Hall observes that because material at the Site stays in the ground, Patersons must pay tax; it has done exactly that which Parliament intended should be captured by the tax. Patersons could not have made a claim under reg.21 because the material to which reference is there made has mass and substance, and a tangible, measurable existence. Further, removal of qualifying material must take place within one year of the date of disposal – an important point when viewed against a claim by Mr Cordara that material does not leave the Site; the biodegradable element transfigures itself into methane which leaves the Site, hence its settlement. Mrs Hall notes, and we accept, that it was the unchallenged evidence of Mr Bourn that the settlement would have been the same whether or not Patersons had flared or used the gas, settlement being an integral part of any landfill site taking biodegradable waste. She also notes that it can take more than one year for methane to be produced by waste, which would be too late for it to qualify for relief under reg.21. A second obstacle in the way of any claim for relief by Patersons under the Regulations is the fact that any notification must be given to the Commissioners in writing before the disposal is made.

159. Mrs Hall maintains that Parliament recognised that the sort of arguments being advanced should not be available to landfill site operators such as Patersons unless they had clearly articulated precisely what their intention was in relation to an identifiable quantity of material before they embarked on the actions which gave rise to their future plans. Parliament very sensibly made provision for apportionment of the tax paid in those circumstances, that arrangement fitting well with the overall scheme of the tax. Credit is available is in relation to material removed, and can readily be calculated.

160. Although we are not required to deal with the quantum of Patersons' claim in this decision, as Mrs Hall makes a number of submissions on the calculation thereof in dealing with the company's liability to tax, it is necessary for us to take account of them.

161. Mrs Hall's main submission in the present context is that the GasSim model is a risk assessment tool, and not designed to assist tribunals, courts, the Commissioners or, indeed, Patersons itself to make a good case based on an intention to dispose of an identifiable part of waste. As such she contends that it is inapt for the purpose of calculating Patersons' claim.

162. Secondly, Mrs Hall maintains that, when one looks at the data Patersons includes in the model, it is so far removed from the purpose for which the GasSim model was designed that it ceases to be that model in any recognisable form.

163. Next, she refers to para 5 of the claim where Patersons claims to identify a "waste stream category" applied to individual loads of waste material it receives. She observes that the EWC codes identifying the nature of that material are not fed into the company's computer model, but are completely ignored. Rather, Patersons feeds into the model waste categories labelled "domestic, commercial and industrial". Mrs Hall alleges those categories to be "as generic as the categories of domestic, commercial and industrial [waste] as are actually fed into the GasSim model by [Patersons]", and submits that they are incapable of informing anyone looking at a load of waste of its biodegradable profile.

164. As an example of assumptions made by Patersons in relation to categories of waste, Mrs Hall points to a claim by the company that a load of domestic waste will contain more newspapers and garden waste than an industrial load. One Alan Dunn, Patersons' financial accountant, is said to refer to the product code of each incoming load and, without inspection of the material, analyse it. Having done so, and been unable to determine whether certain loads consist of commercial or industrial material, he makes an "informed judgment" as to their constituency. Mrs Hall submits that that is "so far abstract", and far removed from what Parliament intended in the context of intention, as to be unworthy of consideration.

165. At para 8 of the claim Patersons says that "Each waste stream can be further broken down according to its waste composition. The waste composition identifies the different materials that make up that waste stream, the waste components and their relative proportions in the stream: 10% newspapers, 5% card, 40% garden waste". Reliance is placed upon the GasSim default waste compositions in that regard. Mrs Hall further observes that whatever the differing content of material received by Patersons, its calculation always adds up to 100%.

166. Patersons sums up the way it calculates the quantum of its claim, saying at (vi):

> "Adding together the results of 1 to 5 above gives the total mass of material received by Patersons during the claim period and used in renewable emergy generation which is expected to actually decompose into landfill gas".

167. Mrs Hall maintains that the computational process so advanced is the wrong process. Even if that process may be used historically, how is it to be used in the future? She submits that the difficulties in identifying the material in respect of which an intention is said to be formed at the edge of the void must lead to the conclusion that Parliament had no intention of permitting such disposals to escape the tax.

168. In all the circumstances, Mrs Hall submits that the appeal should be dismissed

Submissions for Patersons

169. Mr Cordara divides his submissions into three separate parts: first, what might be described as Patersons' core case; second, his response to Mrs Hall's skeleton argument and, third, his response to the oral submissions she developed at the hearing. To some extent the various sections overlap but, in order to ensure that we omit nothing of relevance, we propose to leave them as presented to us.

(a) Patersons core case

170. Mr Cordara submits that a simple, plain reading of the legislation leads to the conclusion that no landfill tax is payable on biodegradable material which Patersons puts into landfill, and which material then decomposes to produce landfill gas. He contends that this approach is on all fours with binding authority in the form of the Court of Appeal decisions in *Parkwood* and *WRG*, and that objections raised by the Commissioners are not sustainable and, if accepted, will give rise to anomalies in the operation of the landfill tax provisions.

171. He emphasises that the instant appeal is a tax case: it is not concerned with a general survey of the relative merits of energy recovery from, respectively, material deposited on landfill sites and other means of energy recovery such as recovery from incineration, composting or anaerobic digestion plants.

172. Mr Cordara further submits that direct and substantial parallels are apparent between the instant case and those of *Parkwood* and *WRG*, both the latter concerning the same provisions as the instant one and both being decided by the Court of Appeal in favour of the landfill site operator on the basis of a purposive approach to the legislation: both throw a decisive light on the relevant issues.

173. In both *Parkwood* and *WRG*, the Court of Appeal held there to be no disposal of material "as waste" for the purpose of s.40(2)(a) if it was used in some way: the fact that the use was within a landfill site was irrelevant. Mr Cordara contends that the Court's conclusion in both cases was based solely on a simple, plain reading of the relevant legislation, which was undoubtedly the correct approach since any basis on which a tax can be levied must be clear, definitive and simple.

174. In Mr Cordara's further submission, all of the issues in the instant case have been posed before, and answered by, the Court of Appeal in *Parkwood* and *WRG*. The Court's answer was simple: if material on a landfill site is used or exploited in some way, there is no intention to discard it, and no landfill tax is payable on it. In the instant case, there is no reason to depart from those binding authorities.

175. He contends that the instant case is stronger than either *Parkwood* or *WRG*, given that neither involved any significant physical change in the relevant materials, nor the generation and export from the site of any product. He submits that the instant case is *a fortiori* the earlier cases, both in terms of what was actually decided, and the discussion therein of policy maters. As Aldous LJ set out in the *Parkwood* judgment

at [10], the "central purpose" of landfill tax is indicated in a Government White Paper of December 1995 entitled "Making Waste Work", which preceded the imposition of the tax, one such purpose being:

> ". . . to recover value from more of the waste that is produced; ". (emphasis added by Mr Cordara).

176. If one of the Government's stated central purposes of landfill tax is that of "encouraging business and consumers . . . to recover value from more of the waste that is produced", no landfill tax is chargeable on biodegradable material. If, in Mr Cordara's yet further submission, landfill tax is charged on the disposal of material at a landfill site indiscriminately of whether energy is recovered from the material or not, then the tax does nothing to encourage the recovery of value from the material. He says that the only way in which landfill tax can encourage recovery from more of the waste is if the tax is not charged on the material from which energy is recovered: that is precisely what the provision is seeking to achieve.

177. Mr Cordara also maintains that that conclusion is consistent with the decision in *Parkwood*, where the Court of Appeal held (at [23]) that "[t]he tax is a landfill tax, not a landfill and recycling tax". The anaerobic material on the Site has been recycled by Patersons into substrate for the anaerobic description that will eventually lead to renewable energy production. In those circumstances, he submits that to charge landfill tax on the disposal of the material will amount to the tax being a landfill and recycling tax and that, as the Court of Appeal said, is incorrect.

178. Notwithstanding his submissions thus far, Mr Cordara contends that what ultimately matters for present purposes is the words on the face of the statute. As to those words, he contends that it is conclusively set out in the judgments in *Parkwood* and *WRG* that landfill tax is chargeable only if all four conditions in s40(2) are met, and there is a taxable disposal.

179. The dispute in the instant case extends only to whether the condition in s.40(2)(a) is met, ie whether there has been a disposal of material "as waste" because "the person making the disposal [of the anaerobic material] does so with the intention of discarding the material", s.64(1)".

180. Mr Cordara adds that the power to tax created by s.39 and the sections which follow are not powers that stem from any European Directive, or were enacted to give effect to any European purposes, see *Parkwood* at [9]. As such, for the purpose of construing s.64, it is unnecessary to have recourse to any definition of "waste" that may be found in European legislation or case law outside the Finance Act 1996 itself, see the tribunal decision in *ICICP* at [25], [30(3)] and [31].

181. He then submits that Patersons does not dispose of anaerobic material with the intention of discarding it, relying for his submission on the following passages of the judgment of the Chancellor (with whom the rest of the Court of Appeal agreed) in *WRG*:

"33. …The word 'discard' [in s.64(1)] appears to me to be used in its ordinary meaning of 'cast aside', 'reject' or 'abandon' and does not comprehend the retention and use of the material for the purposes of the owner of it . . ."

"34. . . ."

" 35. It may be that the economic circumstances surrounding the acquisition of the materials in question by the ultimate disposer of them will cast light on his intention at the relevant time. They cannot, as I see it, affect the decision on this appeal because the use of the relevant material by WRG is clear and such use is conclusive of its intention at the relevant time by whatever means and on whatever terms WRG acquired them."

182. Mr Cordara submits that, in the instant case, the clear actual use made by Patersons of the biodegradable material in generating renewable energy is conclusive evidence that the company has no intention of discarding the material at the time it is deposited in the landfill: there is simply no scope for any argument otherwise.

183. He further maintains that Patersons actively seeks to source from waste producers material containing biodegradable, preferably putrescible, matter, with the clear intention of managing it so as to maximise energy recovery therefrom. Moreover, since the use of such material in fact made by Patersons is clear, the Court of Appeal decision in *WRG* is binding authority that such use is conclusive of Patersons' intention at the relevant time "by whatever means and on whatever terms" Patersons has acquired the relevant material. Accordingly, Mr Cordara submits that there can be no doubt that Patersons' intention at the relevant time is to use the anaerobic material to produce renewable energy: it is not to abandon the material. He adds that any argument otherwise is simply unsustainable on the facts, and is unarguable in the face of binding authority to the contrary. Given those reasons, he claims that no landfill tax is chargeable on the anaerobic material since, at the time that it is deposited on the landfill, Patersons has no intention of discarding it.

(b) Mr Cordara's response to Mrs Hall's skeleton argument

184. In view of what he submits is the clear legislative wording and the binding precedents, Mr Cordara maintains that a number of the arguments put forward by the Commissioners in the amended statement of case are unsustainable and give rise to anomalies in the operation of the landfill tax provisions.

185. Of a claim by the Commissioners that Patersons does not dispose of the anaerobic material with the "primary intention of converting landfill into electricity" (see the amended statement of case, paras 29 and 30), Mr Cordara claims the argument to have no basis in either statute or case law. Section 64(1) requires only that "the person making the disposal does so with the intention of discarding the material". Since Patersons has no intention of discarding the biodegradable material, the test in s.64(1) is not met, and that is an end of the matter. Terms such as "primary intention", "primary objective" and "secondary objective", used in argument by Mrs

Hall, appear to have been plucked out of thin air, and are nowhere to be found in the statute or case law.

186. Viewed against the background of Patersons intended use of the material in generating renewable energy, Mr Cordara maintains that a contention by the Commissioners that the material must necessarily remain waste for the purpose of s.40(2)(a) runs directly counter to what the Court of Appeal said at [34] of *WRG*:

> ". . . the relevant intention may well not be that of the original producer of the materials. There is no principle that material once labelled as 'waste' is always 'waste' just because the original producer of it threw it away. That is not the relevant time at which the satisfaction of the conditions imposed by s.40(2) is to be considered."

As such, he consequently submits the Commissioners argument is not sustainable.

187. Mr Cordara then turns to deal with paras 32 to 34 of the amended statement of case, where the Commissioners claimed as follows:

> "32. The material disposed of as waste does not undergo any special treatment before it is deposited on the landfill site. Landfill gas is created as an intrinsic and unwanted element of the decomposition process of the very material that was disposed of as waste. The material deposited at the landfill site therefore continued to be waste. As such, it fell within the scope of the tax.
>
> 33. It is the fact that biodegradable material has been deposited on or under the surface of the land that the putrification process can take place.
>
> 34. The putrification process and the production of landfill gases are both natural and inevitable consequences of allowing deposited biodegradable material to rot. The material remains in the same location and decomposes into the same state, whether landfill gases are used to generate electricity or not. The material itself is not used for any other purpose."

188. Mr Cordara observes that Patersons does not dispute that the anaerobic material deposited in landfill has in fact been deposited on or under the surface of land, or that the generation of methane is a "natural consequence" of the decomposition of such material under anaerobic conditions. He does, however, challenge as incorrect the Commissioners' assertion that methane is created "as an ... unwanted element of the decomposition process of" the material, submitting that methane, as the product of the chemical reaction involving the material, is certainly not "unwanted" by Patersons: to the company it is an extremely profitable asset. Nor, he further maintains, is it correct to say that methane is "created as an intrinsic … element of the decomposition process", or that "the production of landfill gases is both the natural and inevitable consequence of allowing deposited biodegradable material to rot". Methane is produced only when the material undergoes anaerobic, as opposed to aerobic, decomposition: there is nothing "intrinsic" or "inevitable" about the specific environmental conditions required to generate the maximum amount of methane from biodegradable material.

189. In Mr Cordara's yet further submission, paragraphs 32 to 34 of the amended statement of case demonstrate "the extensive confusion" involved in the Commissioners' position. First, landfill tax is chargeable on disposals of "waste", as conclusively defined for the purpose in s.64(1). He notes that that definition contains no requirement that the material must "undergo any special treatment before it is deposited on the landfill site" to avoid being classified as waste: it is sufficient that the person disposing of the material does not intend to discard it. As Aldous LJ said at [27] of Parkwood; "There need be no change in chemical substance to convert waste into a useful product. It is the act of recycling which is important."

190. Mr Cordara claims it was clearly Parliament's intention to exempt from landfill tax material converted into a useful product. He maintains that the act of actively recovering energy from the degradable material converts it into something useful, and that is important: to charge landfill tax on material that is usefully engaged in renewable energy production is, as Aldous LJ said, "contrary to common sense". It also amounts to inconsistent treatment by the Commissioners since they have accepted that, where material is recycled, the intention of the original producer is no longer relevant in determining whether the material is "waste" for the purpose of s.40(2)(a). As for any argument by the Commissioners that material once "disposed of as waste" must "therefore continue to be waste", and as such necessarily falls within the scope of landfill tax, it simply has no place in view of the Court of Appeal decisions in *Parkwood* and *WRG*.

191. Further, Mr Cordara contends that the fact that in appropriate anaerobic conditions the degradable materials will decompose to generate methane, and that process is not dependent on the methane subsequently being used to generate renewable energy, is completely irrelevant: the only relevant consideration is whether Patersons has intended to discard the material when it deposits it into landfill or, by contract, made use of it for some further purpose. Patersons has every intention of using the material profitably in renewable energy production. He submits that that is sufficient, and there is no requirement for the material to be "used for any other purpose".

192. Mr Cordara rejects a claim by the Commissioners that landfill tax is chargeable on biodegradable material since "[t]he material deposited remains a disposal by way of landfill even though the material produces landfill gas. The material remains untouched and unprocessed long after it has degraded and stopped producing landfill gas", amended statement of case, para 35. He does so on the basis that landfill tax is chargeable only if, at the time Patersons puts the biodegradable material into landfill, it intends to discard it. Mr Cordara submits that that is not the case here: Patersons is not seeking to reclaim the landfill tax it has paid on so much of the materials as is incapable of being converted by way of landfill gas into renewable energy, and therefore remains in the residue after decomposition is complete. That part of the material does not form part of the biodegradable material, and Patersons' claim is made in relation to that material only.

193. It is plainly not the case, as the Commissioners' claim, that Parliament's intention will be defeated if landfill tax is not chargeable on a disposal of the

biodegradable material: Parliament's intention is to be gleaned from the words of the statute, as interpreted by the courts.

194. Of the Commissioners' final allegation in the statement of case, that "[I]t is irrelevant that the person making the disposal or any other person does or could benefit from or make use of the material or any of its constituents or naturally occurring by-products", amended statement of case, para 37(6), Mr Cordara considers the Commissioners to have baselessly sought to expand the ambit of their argument beyond that provided by statute (see s. 64(2)). He maintains that it is clear that the purpose of s.64(2) is to provide for "hypotheticals" to be ignored when applying the test for waste in s.64(1), i.e. where material is disposed of with the intention to discard. The fact that, hypothetically, the material *could* benefit or be of use to anyone is irrelevant: that is why the word "could" is used in s.64(2). By way of example, Mr Cordara cites someone who disposes of a roll of cloth with the intention of discarding it; the cloth is "waste" within the s. 64(1) definition, notwithstanding that someone else can use it to make a skirt to wear or sell.

195. In Mr Cordara's further submission, what s.64(2) does not do, and what the Commissioners need it to do to succeed on their argument, is apply to a situation where the disposer in fact has no intention of discarding the material disposed of. He maintains the only purpose of that subsection to be to avoid a "constructive" intention not to discard, precluding material from being waste under s.64(1) where the actual intention of the disposer is to discard the material. Where, as in the instant case, there is an actual intention not to discard the material, s.64(2) has no application.

196. Consequently, Mr Cordara contends that the Commissioners have no basis on which to argue that Patersons does not benefit from or make use of material it sends to landfill. The fact that it makes active use of the biodegradable material in generating renewable energy is, in Mr Cordara's submission, conclusive evidence that it has no intention of discarding that material at the time it is deposited into landfill; therefore, the material is not waste as defined in s.64(1).

197. He also submits that the absurdity of the Commissioners' position becomes apparent if one considers a parallel to that considered by Aldous LJ in *Parkwood*. On the Commissioners' case, no liability to landfill tax arises if Patersons purchases fresh materials (e.g. clean paper or fresh food) to use at the Site as the substrate for anaerobic decomposition and energy production, whereas a liability will arise if Patersons uses materials delivered by waste producers for the same purposes. As Aldous LJ said at [28] of *Parkwood*, "[t]hat cannot have been the intention of Parliament when they introduced the landfill tax."

198. Any argument that it may be too difficult to calculate quantum in the event of the appeal being resolved in favour of Patersons, should, in Mr Cordara's further contention, be rejected: one cannot tax people on the basis that it will be "too hard" not to do so. If the appeal were to be decided in favour of Patersons, tools are available for ascertaining the mass of the biodegradable material in the form of formulaic approaches such as the GasSim model, and should be used.

c) Mr Cordara's response to Mrs Hall's oral submissions

199. Mr Cordara maintains that the definition of material contained in s.70 could not be wider in extending to "objects, substances and products of all kinds". The tribunal should not gloss that by reference to adjectives suggested by Mrs Hall. There is no statutory bar to chemical changes taking place on material entering landfill to qualify as "material" for the purpose of s. 70. In the case of material mutating into methane through a natural process, it is not a case of some other material or other atomic particles "coming in"; the gas emerging is composed of atoms that were in the material from the beginning.

200. Secondly, he contends that the statutory definition of "material" is apt to include by-products emerging from material going into landfill: although gas cannot be seen, it is certainly a material. Biodegradation, ie the rearrangement over time of those elements of material with the help of microbes into its constituent parts which will become landfill gas, is a natural process; nothing has been added to the material deposited which is the origin of the gas that emerges.

201. However, the question for the tribunal is: does Patersons discard the material deposited into landfill as waste? What are its intentions on the day that disposal into landfill takes place? He submits that we must look at the moment the disposal occurs, and at that time degradation of the material has not even started; it is all in the future.

202. As interpreted by the Court of Appeal in *Parkwood*, the words "discarding the material" found in s. 64(1) mean that "if you have a further use for the material, then you will not have discarded it". Mr Cordara claims that what *Parkwood* and *WRG* show is that, even if material is used as daily cover for only one day to fulfil a regulatory obligation, that is enough to indicate that the material is not discarded.

203. It is common ground that extracting energy from, inter-alia, food waste, rather than simply leaving it to rot in the ground, is beneficial. Mr Cordara observes of Patersons' operation that it is a difficult one, is a long term project, requires money, exposes the company to commercial risk, and has uncertainties at its edges. Despite that, the Commissioners claim that it is outside the Parliamentary intent, material having been discarded as waste. In contrast, in *WRG* material used for daily cover was held to be within the Parliamentary intent. Mr Cordara maintains that to be a nonsense because if *WRG* was, in following its regulatory obligations, not discarding material, nor is Patersons; and it is Patersons' intention in respect of the material at the moment of disposal that matters – nothing else.

204. Mr Cordara claims the Government to have two different policies - one of reducing landfill, and the other of encouraging recycling, recovery and re-use of material. He maintains that its policy is to reduce the quantity of material going to landfill from 20 million tonnes in 2005 to 5 million tonnes in 2020. Patersons is delivering energy recovery – a matter which the Government is under an obligation to encourage. The Commissioners have adopted scaremongering tactics in place of

reasoned argument in claiming that if the tribunal were to allow the appeal, it would emasculate the tax. Mr Cordara claims that if Patersons were to succeed in its appeal, the blended rate (i.e. the rate it calculates it would pay taking a full quarter's input, gross tax, and subtracting the saving it estimates it would make) it would have to pay would be about £8 per tonne less than the full rate; at the present rate of tax of £64 per tonne, it would be reduced to £56 per tonne.

205. On the basis of the decisions in *Parkwood* and *WRG*, Mr Cordara asks: was it likely to have been the Government's intention to give Patersons a tax break in relation to the non-application of the tax to the element of material it is able to recycle? If the Court of Appeal was right in deciding that Parliament intended to give a tax break to someone providing daily cover or by building a road, it is inexorable that it also intended to give such a break to those who receive landfill and embark on difficult, complicated and multi-year commercial ventures to use that landfill to generate electricity which (a) gets rid of methane, (b) obeys the various requirements of the EU, and (c) replaces fossil fuels.

206. Every disposal of material attracts the higher rate of landfill tax unless it is one of inert material. But Mr Cordara adds, there are three tiers: inert material, chemically active material, and material to which *Parkwood* and *WRG* apply so that if a suitable use can be made of it, it is not discarded and no landfill tax is payable on it.

207. As far as Regulation 21 is concerned, it is impermissible to construe an Act of Parliament by reference to a statutory instrument made under it. The Regulation was in existence when both *Parkwood* and *WRG* were decided and, had the point Mrs Hall seeks to make on it been relevant in either case, it would have been taken. Mr Cordara contends that those cases show that material which was, or most probably was left on, and disposed of, on a site is not discarded. Consequently, Mrs Hall's premise on the regulation can not survive. The provision is not an error correcting one, but rather one based on the assumption that you can pay the tax properly on material which has been disposed of on site, notwithstanding an intention to recycle or incinerate it. *Parkwood* and *WRG* say such material is not within the tax at all. The provision has been superseded, given the *Parkwood* and *WRG* cases. It has also been superseded because it operates on the assumption that material has to be removed for the tax to be refunded. *Parkwood* and *WRG* show that if a taxpayer does not have the requisite intention, it matters not where the material is located; the twin assumptions of intent and the need for removal were both falsified by *Parkwood* and *WRG*.

208. Mr Cordara then turns to deal specifically with the *Parkwood* and *WRG* cases, opening by claiming that the suggestion repeatedly made by Mrs Hall that the two cases were about diversion from landfill was wrong: and any claim by the Commissioners that they can be distinguished from the instant one on that basis should be treated very cautiously; the landfill is the whole site.

209. If the Commissioners' case is that the landfill includes the tipping face, it is wrong. Both the daily cover and the fluff, and any other materials used for engineering purposes, are within the void. Again, the suggestion that either *Parkwood* or *WRG* can be explained on the basis of diversion is incorrect.

210. Once it is borne in mind that everything in those two cases went to landfill the relevance of them becomes very plain. It is Patersons' intention towards the material of which it disposes that is relevant. The material disposed of may disappear forever in the new land form, but it remains there and does not disappear.

211. The Commissioners suggest that Patersons' use of the materials is too indirect to escape the tax. The word "discard" is a negative; there is no presumption as to what a taxpayer is going to do with material, so long as it can be said that he has not truly discarded it.

212. Mr Cordara next observes that, in the *Parkwood* case, the company paid for the material used for road building etc but says that that is neither here nor there. Section 64(1) contains no enquiry as to how the taxpayer came to be in possession of the material. Rather, the Court of Appeal focused on the promotion of recycling, and the reduction of the amount going to landfill. And, in looking at the promotion of recycling, it laid down no restriction on the shape or manner of the recycling: it certainly did not exclude a change in chemical substance from recycling, Aldous LJ saying at [27] "there need be no change in chemical substance to convert waste into a useful product. It is the act of recycling which is important. That was recognised by Parliament in its drive to promote recycling rather than disposal and was recognised by the cumulative effect of s.40(2)." In Mr Cordara's submission, the Court appeared to be totally open to whatever form of recycling was involved.

213. The words "to convert waste into a useful product" in the first of those sentences cited from the judgment at [27] show the Court recognising conversion of waste as the underlying policy of the Government, indeed of s.40(2). The only matter for consideration by the tribunal is the construction of s.40(2). All Patersons seeks to do is to have the concept of recycling, rather than disposal, applied.

214. The Court of Appeal indicated the extent to which the wider environmental campaign is to be taken into account in the administration of landfill tax; the policy battle is not one to be fought in the instant case. As was said by Aldous LJ in the final sentence of [28] in *Parkwood*:

> "The purpose of the legislation was to tax waste material deposited at landfill sites, and not to tax deposits at landfill sites of useful material produced from waste material."

In Mr Cordara's further submission, that is the answer to the Commissioners' suggestion that landfill tax can cope only with a non-discarding situation where immediate use is made of something. The useful material produced in Patersons' case is landfill gas; the waste is converted into that useful material using the language of *Parkwood* at [28] and then that of [27]. The Commissioners seem to be saying that *Parkwood* was a case of material being diverted away in a straightforward fashion. Mr Cordara's response is that there was no diversion away, and it might have been straightforward, but the Court had its eye on a wider horizon.

215. Mr Cordara accepts that *Parkwood* was concerned with the use of material, but maintains that *WRG* focused on the different concept of retention. He submits that the Commissioners failed to grapple with the fact that there was a regulatory requirement to put a barrier, daily cover, over newly deposited waste was well in mind of the Court, see [16] of *WRG* where the Chancellor cited [12] of the judgment of Barling J at first instance.

216. The tribunal was being invited, very discreetly, to say that the Court of Appeal "missed a trick and/or they were wrong". The Commissioners were saying that the fact that it was a regulatory requirement to make use of the material in point in *WRG* should have led the Court of Appeal to conclude that no use recognised by Parliament was in fact taking place. The Commissioners' argument was that the material should be deemed to have been discarded because what *WRG* did was a required action, and was therefore effectively always to be treated as an act of discarding. In Mr Cordara's submission, that is a "shocking argument".

217. He further contends that the whole of the regulatory argument put before the tribunal in the instant case is very seriously damaged by:

a) the *WRG* decision, and
b) the very proper actions of the Commissioners in accepting fluff and/or similar claims as outside the scope of the tax.

218. At [33] of *WRG* the Chancellor explained what he considered the synonyms of discard: cast aside, reject or abandon; and in the same paragraph he gave the antonyms:

> "And does not comprehend the retention and use of the material for the purposes of the owner of it".

Mr Cordara maintains that statement to be very helpful to Patersons since the company falls within it for if it did not retain material and use it, it would not have electricity for sale.

219. What the Commissioners are inviting the tribunal to do, in essence, is to conclude that where material is used for regulatory purposes it is not used in the sense recognised by Parliament. In *WRG*, the Court of Appeal knew that the use of the material there in point was a regulatory requirement, and had no problem in dealing with it. On the Commissioners' case, assuming there to be a policy to promote recycling, recycling takes the matter outside the scope of the tax; but that policy does not extend to recycling required by any form of regulatory obligation. Mr Cordara submits that it does not make sense to read into s.64(1) the caveat that the intention must not have been formed with reference to any statutory obligation**.**

220. If the existence of a regulatory requirement were to be material, the tax regime would expand and contract under environmental, pollution and waste management control. If the taxpayer has been dealing with material just for commercial reasons up

to that point *WRG* is fine. From that moment on the tax has to be paid – a change that makes no sense.

221. Even were Patersons giving away the electricity it generates, the Commissioners say the position would be no different, it would still be using material it intended to discard because it was using the biomass to generate electricity via the landfill gas. Mr Cordara rejects that claim saying that it is Patersons' objective conduct in the real world that matters.

222. Mr Cordara notes that, in evidence, Mr Bourn eventually accepted that Patersons uses the biodegradable material indirectly to generate electricity. He maintains that that is sufficient because the indirectness is on what Mr Bourn was required to focus: the opposite of discard is not to make full and final use of the material on the same day as its disposal takes place. The second point Mr Cordara makes on the indirect point is that s.64(2) requires not merely use of material, but also a benefit therefrom. Thirdly, he observes that landfill gas is waste converted into a useful product, and the fact that conversion is over a long period does no harm to Patersons' case. Fourthly, he submits that multistep processes are common, and should not be penalised. Incineration producing electricity takes place on one day; it may produce more electricity than decomposition, but it also releases heavy metals into the air. In contrast, decomposition is a much slower, gentler process, but releases no dioxins, leaves carbon dioxide in the ground and produces methane which is destroyed and converted into electricity. Energy recovery is what Patersons is about: it makes use of a process, the use of biodegradable material. It does not discard that material as waste.

223. Mr Cordara then turns to deal with the European legislative material. He claims the obligations thereunder to be a "two-way street": one of obligations on countries, the other on people. Of the former, Mr Cordara notes that there is an obligation on the United Kingdom to encourage energy recovery. When *Parkwood* was decided in 2003 the agenda in this regard was still forming, but enough of it existed for the Court to link landfill tax to the United Kingdom's wider environmental agenda in [9] of Aldous LJ's judgment: by community law the UK is under an obligation to take appropriate steps to encourage the prevention, recycling and processing of waste. Mr Cordara claims that he is saying nothing more than the Court of Appeal said.

224. The real question before the tribunal, in Mr Cordara's submission, is: does Patersons use the biodegradable material remaining after extracting fluff or material used for daily cover; does it, or does it not, discard that material? It is Patersons' intention in that regard that matters, not its regulatory or other obligations; its objective conduct on site is that in point. Is Patersons' intention to discard or not? Mr Cordara maintains that Patersons should be dealt with on the basis of what it does, rather than what someone says it does. The company obtains biodegradable material and uses it to generate electricity. That is its intention; it matters not why. It recycles or recovers energy from biodegradable materials. The tribunal should not be deflected into considering matters other than its simple and obvious intention at the moment of disposal.

225. Mr Cordara also maintains that the fact that some landfill gas results from the decomposition of material in older, pre-landfill tax, cells is immaterial to Patersons' claim; its claim is restricted to the appropriate limitation period and is made on the basis of carefully structured parameters, the elements of what was delivered over the claim period which Patersons can, with a high degree of certainty, be sure will decompose into gas.

226. Mr Paterson senior gave evidence, which the tribunal should accept, that Patersons decided to go into the electricity generation venture for purely commercial reasons, and not because it was legally obliged to do so; and it did so with the intention of making as much money as possible from the operation.

227. Mr Cordara submits that the Crown's submission that because Patersons does not receive material from Biffa as fuel, it is receiving the material as waste, somehow dilutes or cancels out any intention the company may have not to discard it, is fallacious: it is Patersons' intention, objectively ascertained, that answers the statutory question. For that reason, there is nothing in the Biffa point. Mr Cordara advances what he maintains is a related point which is that by the time Patersons forms its intention it has accepted material Biffa has sent and thus performed its obligations to that company, so that again there is nothing in the Biffa point.

228. Mr Cordara also accepts that in any long-term technical, generating project there will always be uncertainties such as the quantity of electricity a site operator will be able to generate, but maintains that he will not be discarding the material. The important point of intention is that a site operator knows that there will be a substantial landfill gas output.

229. He submits that in calculating the amount of its claim using the GasSim model Patersons has taken into account all relevant factors including imponderables and losses; the calculation makes a very conservative assumption as to the elements unlikely to produce anything useful. That is why the blended rate of tax will be reduced only by the order of £8 per tonne of material.

230. In relation to quantum Mr Cordara submits that Patersons' repayment claim has been put together in what he describes as a very conservative manner. He maintains that the claimed sum starts from the proposition that there is clearly substantial biodegradable material producing landfill gas, and then proceeds on the basis that only so much of the material the company disposes of at the Site as is capable (as predicted by the GasSim model) of actually decomposing into landfill gas and thus generating renewable energy. Whilst the amount of the claim is based on a series of assumptions, the original figure produced is constantly reduced until a figure is reached on which Patersons may "confidently" rely: the GasSim model has been found to be very reliable in predicting the amount of material settled into landfill as a consequence of loss through landfill gas. The appeal should be allowed.

Discussion and conclusion

231. After the most detailed consideration of the submissions of both parties, we find ourselves unable to accept a number of those advanced by Mr Cordara. As our reasons for so saying lead to our conclusion, it is appropriate for us to give them, and we now proceed to do so.

232. We refer first to the cases of *Parkwood* and *WRG*, they being at the heart of the core case presented by Mr Cordara. We are unable to accept his submission that the two cases constitute "binding authority" for the proposition that the use Patersons makes of biodegradable material it puts into landfill is conclusive evidence of its intention at the relevant time. The factual differences between *Parkwood* and *WRG* on the one hand and the instant case on the other could not be greater. In both the former, inert material capable of immediate identification and quantification was set aside and shortly afterwards used for a specific purpose, whereas in the instant case material said to be capable of producing landfill gas, but which is mixed with other identical material said to be incapable of so doing, is put into the void to await anaerobic decay, and physical and chemical changes at some later date. There is no method of distinguishing between the two types of material disposed of by Patersons. As Mrs Hall observes, the purposive reading of the cases Mr Cordara suggests "is one of the most flawed features of the appeal ". She adds, quite correctly in our judgment, that the assumptions on which the Court of Appeal based its statements of principle differed substantially from those of the instant case. She further observes that neither judgment addressed the key issue in the instant case; that only something which physically exists can be put on or under land. We agree that the tribunal can deduce nothing of any real value from the Court of Appeal judgments because the assumed premise of the Court's reasoning was that the material in point had mass, occupied space, and was diverted from landfill.

233. We particularly note Mr Cordara's claim that the instant case is *a fortiori* the earlier ones as the "central purpose" of landfill tax, as set out in the government White Paper of 1995, being to recover value from more of the waste that is produced. The purpose he identifies is but one of three, the other two being the production of less waste and the disposal of less waste in landfill sites, the former, in our judgment, being the most important. Far from Patersons wanting less waste to be produced, and less waste to be disposed of in landfill sites, it seeks just the opposite; it needs more waste, and hopes that it will be sent to landfill in order that all eight of its gas engines can again be brought into use to generate electricity. In those circumstances, we are unable to accept that Patersons' case is stronger than the earlier ones, and agree with Mrs Hall that the reasoning of the Court of Appeal in the two cases cannot be transposed on to the facts of the instant case.

234. Mr Cordara further claims the Court of Appeal judgments to indicate that, if material on a landfill site is used or exploited in some way, there is no intention to discard it, and in the instant case Patersons use of it to generate electricity amounts to its recycling. Mrs Hall's answer to that claim, on which we again rely, is that material sent to landfill is not recycled; it is merely put into the ground. Although it was not argued before us, we take the view that to recycle means 'to return to a previous stage

of a cyclic process' (see Shorter Oxford English Dictionary), which would exclude the creation of methane from the process. We also agree with Mrs Hall that methane produced as a by-product of the degradation of material in landfill is not the sort of recycling to which the Court of Appeal was referring in Parkwood.

235. Landfill of waste material can create the conditions that give rise to methane production, but without certainty. Only if the necessary conditions exist in the ground, and they may have to be created, e.g by the addition of leachate, will the anaerobic process occur. That, in our judgment, cannot be described as recycling the material.

236. We decline to give 'material' in s.70 the broad meaning Mr Cordara would have us give it, much preferring Mrs Hall's contention that 'material' "must have mass, must occupy space, must be something capable of disposal, and must be physical and perceptible to the senses as a tangible substance". Our preference is based in reliance on the statutory provisions to which Mrs Hall makes reference at [?] above.

237. Central to Patersons' case is Mr Cordara's submission that the clear, actual use made by the company of the biodegradable material in generating renewable energy is conclusive evidence that it has no intention of discarding material at the time it deposits it into landfill. Once more we agree with Mrs Hall that the instant case is not one in which use can be described as conclusive of Patersons' intention, and Mr Cordara's claim that its case is analogous to that of *WRG* is, to quote Mrs Hall, "a perversion of the Court of Appeal's reasoning in WRG".

238. Mr Cordara further submits that, since Patersons intends to use material sent to landfill for the purpose of generating electricity, a claim by the Commissioners that such material is waste cannot be sustained. He relies on [34] of *WRG* for the purpose. Having observed that case law indicates that material is waste if the person disposing of it intends to cast it aside, reject or abandon it, Mrs Hall correctly adds that in WRG the Court of Appeal did not address a situation in which credit was sought for material sent to landfill and the material concerned was not physically used.

239. He also challenges the Commissioners' claim in para 32 of the amended statement of case, that methane is created as an unwanted element of the decomposition process, maintaining that it is certainly not unwanted by Patersons, being an extremely profitable asset to the company. Mrs Hall responds, quite correctly, by observing that the company has a regulatory obligation to use the methane produced at the Site, and contending that it cannot recharacterise its obligation as commercial exploitation. We agree with Mrs Hall that all the evidence points to Patersons being a landfill business making profit out of that it is obliged to do for regulatory purposes, and we so find.

240. Next Mr Cordara claims that the act of actively recovering energy from degradable material converts it into something useful, and Parliament intended to exempt from the tax material converted into useful products. Once more, we rely on the response of Mrs Hall to that submission. She maintains that Patersons' claim should be rejected for it is simply doing the very thing it is obliged to do for regulatory purposes; the claim is "totally counter intuitive". Were it to succeed, it

would defeat the very object of the tax, that object being to encourage recycling and to discourage putting material into the ground.

241. He further rejects the claim by the Commissioners at para.35 of the amended statement of case that the material Patersons deposits at the Site remains a disposal by way of landfill even though the material produces landfill gas, contending that it does not intend to discard the material. We shall deal with that submission shortly.

242. We are totally unable to accept Mr Cordara's claim that it cannot be too difficult to calculate quantum in the event of Patersons' appeal proving successful, and that the formulaic approach proposed should be used. The reasons for our non-acceptance are numerous, and may be explained as follows:

a) As we observed at [2] above, Patersons' original tax repayment claim was in a sum of over £17.5 million, but was reduced as late as February of this year to one of just over £3.5 million, i.e. by 80%. No explanation was offered for that reduction. Quite how it relates to Mr Cordara's claim that if the company's appeal were to be successful the "blended rate" (see [?] above) would be some £8 per tonne less than the current full rate of £64, i.e. reduced by 12.5%, we are unable to say. Clearly, the original claim was not reduced from one for the whole of the material Patersons sends to landfill to one for the material said to be subject to the blended rate for had it been the reduction would have been even greater. (From the approach taken by Mrs Hall at the beginning of the hearing, we were left in no doubt that the Commissioners believed the original claim to have been made in respect of all the material sent to landfill);
b) The GasSim model suggested for use is a risk assessment tool, and therefore completely unsuited to the calculation of a liability to tax;
c) The reliability of the model is, according to the evidence of Mr Grantham, the subject of serious scientific debate;
d) Comparison of the estimated production of landfill gas at an unidentified site in 2009 using the GasSim model with actual production revealed a discrepancy of 10%, whether up or down we were not told;
e) As Mrs Hall observes, when one looks at the data Patersons uses in the adapted GasSim model to calculate its liability to tax, that model is so far removed from the original (and from its purpose) that it ceases to be the original model in any recognisable form;
f) Patersons does not use the information on the waste transfer notes to identify the waste stream category applied to individual loads of waste material received, but rather feeds into its computer information used to calculate the liability waste categories labelled "Domestic, commercial and industrial" which, as Mrs Hall observes, are "as generic as the categories of domestic, commercial and industrial [waste] as are fed into the GasSim model by [Patersons]".
g) Further, it is left to an employee of Patersons, its financial accountant, to determine the content of certain loads of waste, and he does so without examining it. His analysis of the situation is said to be an "informed judgment".

243. Mrs Hall submits the last of those considerations to be so far abstract and far removed from what Parliament intended in the context of intention as to be "unworthy of consideration". We would apply that description to the whole calculation.

244. As we understand him, Mr Cordara claims that, whilst Patersons receives waste material from Biffa (and its other customers) for disposal into landfill as a landfill site operator for tipping it into the void in that capacity, it does not discard it as waste as it intends to use it to generate electricity. It would seem that at the very moment the material is tipped into the void, as Patersons has by then, indeed at that very moment, become its owner, its intention as expressed to its customers is changed from discarding to one of not discarding, so that it cannot then be said to discard it as waste. As Mrs Hall observes, the use of the definite article in s.64(1) indicates that there should be one intention in relation to the disposal of waste and, in our judgment, Patersons' intention in the instant case is that of acquiring the Biffa waste for landfilling purposes. It follows that we hold Patersons to dispose of material put into the void at the Site as the discarding of it as waste.

245. Our finding in that behalf is reinforced by our acceptance of a submission by Mrs Hall in relation to the requirement that material must be measured "by the tonne". What she correctly describes as a necessary corollary to Patersons' case is that it has an intention to discard an unascertainable proportion of material at the time it is deposited into landfill (meaning that is can properly be described as waste), whilst having no such intention with regard to the equally unascertained balance (which means that is cannot be so classified). As Mrs Hall claims, the proposition is absurd having regard to what happens at the Site, and is not one that fits the overall scheme of the legislation.

246. We need add nothing more by way of explanation for concluding the case in favour of the Commissioners, except to say that we have considered and rejected the remaining submissions of Mr Cordara but accept the correctness of those of Mrs Hall. We adopt the latter as our other reasons for dismissing the appeal.

247. This document contains full findings of fact and reasons for the decision. Any party dissatisfied with this decision has a right to apply for permission to appeal against it pursuant to Rule 39 of the Tribunal Procedure (First-tier Tribunal) (Tax Chamber) Rules 2009. The application must be received by this Tribunal not later than 56 days after this decision is sent to that party. The parties are referred to "Guidance to accompany a Decision from the First-tier Tribunal (Tax Chamber)" which accompanies and forms part of this decision notice.

DAVID DEMACK
TRIBUNAL JUDGE

RELEASE DATE: 2 August 2012

Schedule 1

Basis for computing the Reclaim Amount

4. The reclaim amount is the amount of landfill tax paid by Patersons which relates to so much of the material disposed of at the Site as is capable (as predicted by the GasSim computer model) of actually decomposing into landfill gas and thus generating renewable energy (i.e. the putrescibles).

5. For each incoming load of material which arrived at the Site during the claim period and was used by Patersons to produce energy, the starting point was to identify a "waste stream" category that applied to the load. Three main waste stream categories were used: "domestic", "commercial" and industrial". Each waste stream category is defined by reference to the general nature of the material it contains. For example, a domestic load would contain more newspapers and garden waste than an industrial load.

6. The mass of each load was also recorded.

7. The task of determining which waste stream category to apply to each incoming load was carried out by Alan Dunn, Patersons' financial accountant. In doing so, Mr Dunn referred to the "product code" for each incoming load, e.g. "tyres", "muck", "clinical waste", and also identified the customer who delivered the load. Of the 160 or so loads that Mr Dunn analysed, he was able to categorise all but 25 loads as being from a domestic, commercial or industrial waste stream. Of the remaining 25 loads, where it was not possible to determine whether the waste was commercial or industrial, Mr Dunn made an informed judgment call and categorised each as being from either a "50% Commercial / 50% Industrial" ("50/50") waste stream or a "60% Commercial / 40% Industrial" ("60/40") waste stream.

8. Each waste stream can be further broken down according to its "waste composition". The waste composition identifies the different materials that make up that waste stream (i.e., the waste components) and their relative proportions in the stream (e.g. 10% newspapers, 5% card, 40% garden waste, etc). GasSim includes default waste compositions for certain waste streams, including the domestic and commercial streams. These defaults are derived from published data. (see Development of a landfill gas risk assessment model: GasSim, Table 1: [3/1288]). GasSim also allows the user to make adjustments to the default waste composition.

9. In the present case, the waste compositions used by Patersons for each of the domestic, commercial and industrial waste streams are shown in columns B, C and D of Tab 5. Patersons applied GasSim's default waste composition for the domestic waste stream, but made adjustments to the default waste composition for the commercial stream. GasSim does not include a default waste composition for the industrial waste stream, and the composition used by Patersons was determined on the basis of site-specific information.

10. For each component in a waste stream, GasSim provides default values for "water content", "cellulose" and "hemi-cellulose". Taking row 2 in Tab 5, labelled "newspapers", as an example, these values indicate that 30% of newspapers is water, 48.5% of the dry mass is cellulose and 9% of the dry mass is hemi-cellulose. Default values from GasSim were used for each of the listed waste components in Table 5 (in columns F, G and H).

11. In addition, for each waste component, GasSim provides a default value for "decomposition". This is column E in Tab 5. The decomposition figure for each waste component is the percentage of the cellulose and hemi-cellulose content in that component that is expected to actually decompose into landfill gas. So, again taking row 2 of Tab 5 (newspapers) as an example, the decomposition figure of 35% indicates that 35% of the cellulose and hemi-cellulose content of newspapers is expected to actually decompose into landfill gas.

12. The values for "water content", "cellulose", "hemi-cellulose" and "decomposition" then allow, for each waste component, a computation of the percentage of the total wet mass of that component that is expected to actually decompose into landfill gas. Again taking newspapers as an example, 100 tones of newspapers will contain 30 tonnes of water. Of the remaining 70 tonnes, a total of 57.5% (i.e. 48.5% plus 9%) will be cellulose and hemi-cellulose. This will be 40.25 tonnes. The decomposition figure for newspapers is 35%, so approximately 14.09 tonnes of newspapers are expected to actually decompose into landfill gas. This is what the figure in column I of Tab 5 ("revised decomposition") represents. So, moving away from newspapers and looking at magazines (row 3) and other papers (row 4), the revised decomposition figures show that, of 100 tonnes of either magazines or other papers, 16.55 tonnes or 65.72 tonnes respectively, are expected to actually decompose into landfill gas.

13. The revised decomposition figures (Tab 5, row I) are then used to compute, for each component of each waste stream, the percentage of that waste stream that will actually decompose into landfill gas by reason of that component.

14. For example, newspapers make up 11% of the domestic waste stream (Tab 5 column B row 2), and the revised decomposition for newspapers is 14.09% (Column I row 2). This means that, of 100 tonnes of domestic waste, 11 tonnes are newspapers and of those 11 tonnes, 14.09% will actually decompose into landfill gas. 14.09% of 11 tonnes is about 1.6 tonnes. So, where a load of material from the domestic waste stream is delivered to the Site, 1.6% of that load is expected to actually decompose into landfill gas by reason of the newspapers in that load. The figure of 1.6% is referred to in Tab 5 as "revised domestic", and is shown in column M.

15. The same computations are carried out for each of the other components in the domestic waste stream, and also for each of the components in each of the commercial and industrial waste streams. The resulting "revised domestic", "revised

commercial" and "revised industrial" figures are shown in columns M, N and O of Tab 5.

16. The next step is, for each waste stream, to add up all the numbers in column M, N or O (depending on the waste stream). The sum is the total percentage of material in that waste stream which is expected to actually decompose into landfill gas.

17. So, taking column M (domestic waste stream) as an example of a 100 tonne load from the domestic waste stream, 1.6 tonnes is expected to decompose into landfill gas by reason of newspapers in the load, 0.81 tonnes is expected to turn into gas by reason of magazines in the load, 6.62 tonnes by reason of other papers in the load, and so on. The total amount (after normalisation) of that 100 tonne load that is expected to actually decompose into landfill gas is 17.37 tonnes, or 17.37% which is the figure shown in column M row 20 of Tab 5.

18. Going through the same summing up process for the commercial waste stream and the industrial waste stream gives normalised "revised commercial" and "revised industrial" figures of, respectively, 35.58% and 4.67%, which are shown in columns N and O of row 20 in Tab 5.

19. As to the 50/50 and 60/40 waste streams, the corresponding percentages of material in those waste streams that will actually decompose into landfill gas are given in column C, rows 22 and 23 (respectively) of Tab 5 (i.e. 20.12% and 23.21%). These have been computed as follows.

20. For the 50/50 waste stream, 100 tonnes of material will contain 50 tonnes of material from the commercial waste stream and 50 tonnes of material from the industrial waste stream. We know that 35.58% of material in the commercial waste stream will actually decompose into landfill gas (Tab 5, column N row 20), and 4.67% of material in the industrial waste stream will actually decompose into landfill gas (Tab 5; column o row 20). So, of the 100 tonnes of material from the 50/50 stream, the total material that will actually decompose into landfill gas is expected to be 35.58% x 50 tonnes+ 4.67% x 50 tonnes) = 20.12 tonnes. This is 20.12% of the total material, and is the figure given in column C row 22 of Tab 5.

21. The same computation was carried out in relation to the 60/40 stream. Of 100 tonnes of material from that stream, the amount that is expected to actually decompose into landfill gas is (35.58% x 60 tones + 4.67% x 40 tonnes) = 23.21 tonnes. This is 23.21% of the total material, and is the figure given in column C row 23 of Tab 5.

22. The final step in the computations is to multiply:

(1) the "revised domestic" figure of 17.37% in the total mass of so much of the material received by Patersons during the claim period and used in renewable electricity generation ("the Total Material"), as came from the domestic waste stream;

(2) the "revised commercial" figure of 35.58% to the total mass of so much of the Total Material as came from the commercial waste stream;
(3) the "revised industrial" figure of 4.67% to the total mass of so much of the Total Material as came from the industrial waste stream;
(4) the "revised" figure for the 50/50 stream of 20.12% to the total mass of so much of the Total Material as came from the 50/50 waste stream; and
(5) the "revised" figure for the 60/40 stream of 23.21% to the total mass of so much of the Total Material as came from the 60/40 waste stream.

Adding together the results of (1) to (5) above gives the total mass of material, received by Patersons during the claim period and used in renewable electricity generation, which is expected to actually decompose into landfill gas ("the decomposing mass"). This is the material that Patersons had no intention of discarding when it disposed of it on the landfill (i.e. this is the Putrescibles). Clearly landfill tax is not chargeable on the decomposing Mass.

Insert spreadsheets

Schedule 2

Since landfill tax is a domestic initiative aimed at protecting the environment and securing the ambitions of EU Council Directives on waste (see paragraph 9 of the Court of Appeal judgment in *Parkwood Landfill*) Mrs Hall submits that it is necessary to have regard to the broader EU context. Her submissions in that behalf take the following form.

(a) An overview of the relevant Directives

8. The original Directive 75/442/EC on waste was amended in 1991 by Council Directive 91/156/EC, and was repealed and replaced by Directive 2006/12/EC. The Waste Framework Directive provides the definitions of waste and of terms such as disposal and recovery.

(b) Directive 75/442/EC

9. Article 1 (a) of Council Directive 75/442 defined waste as follows, ' "*waste" means any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law*'.

10. Article 1(b) defines "disposal" as *the collection, sorting, transport and treatment of waste as well as its storage and tipping above or under ground"*

11. Article 3 sets out the action member states were required to take in relation to waste. Under Article 3.1. "*Member states shall take appropriate steps to encourage the prevention, recycling and processing of waste, the extraction of raw materials and possibly of energy therefrom and any other process for the re-use of waste*'.

12. Article 3(2) obliges member states to, *"… inform the Commission in good time of any draft rules to such effect and in particular any draft rule concerning: … (b) the encouragement of:*

- *reduction in the quantities of certain waste*
- *the treatment of waste for its recycling and re-use*
- *the recovery of raw materials and/or the production of energy from certain waste"*

13. Under Article 4 *"Member states shall take the necessary measures to ensure that waste is disposed of without endangering human health and without harming the environment"*.

(c) Directive 91/156/EC

14. Directive 75/442 was amended by Council Directive 91/156/EC and the definition of waste in Article 1 9a) was altered to read: '*waste shall mean any substance or object in the categories set out in Annex 1 which the holder discards or intends or is required to discard'*. Annex 1 lists sixteen categories of waste. See for example Q14 *'Products for which the holder has no further use e.g. agricultural, household, office, commercial and shop discards etc'*.

15. Both Directives inform the scope of UK waste legislation:

a. The Environmental Protection Act 1990 for example defines household, commercial and industrial waste; and in particular relies heavily on the 91/156/EEC when it defines waste as: *'Any thing which is discarded or otherwise dealt with as if it were waste shall be presumed to be waste unless the contrary is proved'*. See section 75(3).

b. The definition of what is a taxable disposal under landfill tax was clearly informed by the above Directives. For example, the references in section 40(2) of the Finance Act 1996 to *"a disposal of material as waste"* and in section 64 to *"A disposal of material is a disposal of it as waste if the person making the disposal dies so with the intention of discarding the material'* so closely follow the definitions outlined in the Directives that those sections cannot sensibly be interpreted without reference to them.

(d) The Landfill Directive 1999/31/EC and its domestic implementation

16. The Landfill Directive (Council Directive 1999/31/EC on the landfill of waste) aims to reduce the production of methane gas from landfills and to reduce global warming, through the reduction of the landfill of biodegradable waste. The overall objective of the Directive, as set out in Article 1, makes specific reference to the global environment including the greenhouse effect as well as the risk to human health from landfilling.

17. This Directive also lays down requirements to introduce landfill gas controls.

18. Article 2(g) defines as landfill as *"a waste disposal site for the deposit of waste into or onto land (i.e. underground)"*.

19. The Landfill Directive sets out operational and technical requirements on the waste to be landfilled and in relation to landfills themselves. The purpose of these requirements is to prevent or reduce as far as possible the negative environmental impact of landfilling. See Article1.

20. The Landfill Directive sets a series of targets for Member States to reduce the amount of biodegradable municipal waste going to landfill. The final target is to reduce by 2020, the amount of Biodegradable Municipal Waste (BMW) landfilled to 35% of the quality of BMW produced in 1995. See Article 5.

21. The UK has met its landfill diversion targets for 2010; it is well on the way to meeting its target for 2013 and is confident of meeting the 2020 target. This is being achieved through a range of measures such as the landfill tax, driving up the cost of disposal to landfill and the adoption of policy measures to encourage alternative forms of treatment such as anaerobic digestion. The material which is the subject matter of this appeal has and will contribute to those targets. Paragraph 23 of the Executive Summary of Defra's Review of Waste Policy 2011 states *"The Landfill tax – with increases maintained towards a floor of £80 per tonne in 2014/15 – will remain the key driver to divert waste from landfill and remains necessary to ensure we meet key EU targets in 2013 and 2020."*

22. In addition to the diversion of BMW from landfill, the Landfill Directive requires that waste must be treated prior to landfill (see Article 6(a)) in order to reduce the amount of waste landfilled and enhance recovery (recital 8). The definition of treatment includes the sorting of waste (Article 2(h)).

23. Recital 17 of the Landfill Directive states that the measures taken to reduce the landfill of biodegradable waste should also aim at encouraging the separate collection of biodegradable waste, sorting in general, recovery and recycling.

24. One of the clear objectives of the Landfill Directive is to reduce the landfilling of biodegradable waste. One of the reasons for this is to reduce the impact on the global environment from the greenhouse gases emitted from the landfill.

25. The Landfill Directive requires that landfill gas shall be collected from all landfills receiving biodegradable waste and the landfill gas must be treated and used. If the gas collected cannot be used to produce energy it must be flared. See Annex 1 paragraph 4.

26. The requirement to collect the gas reflects the fact that the production of methane is an integral part of the landfilling of biodegradable waste. The requirement

t use the landfill gas reflects the fact that energy can be obtained from the methane fraction and that this energy should be recovered wherever possible.

27. If the landfill gas cannot be used it must be flared. Flaring means that the landfill gas is burnt at a high temperature (for example 1000ºC) under controlled conditions. Methane in the landfill gas is thermally oxidised to carbon dioxide in the flare.

28. Since methane is considered to have a global warming potential of approximately 25 times that of carbon dioxide (the most recent estimate from the Intergovernmental Panel on Climate Change (IPCC): 21 times is still used for methane emission reporting purposes) the oxidation of the methane to carbon dioxide is more significant in the reduction of greenhouse gas emissions than the replacement of fossil fuel though the generation of electricity from the landfill gas.

29. For the purposes of reporting greenhouse gas emissions, the carbon dioxide emissions from landfills are not included, only the methane emissions. This is because the carbon dioxide emissions come from biogenic wastes such as food and paper and so are considered to be part of the natural carbon cycle.

30. The collection of landfill gas is a clear requirement of the Landfill Directive. This means that investment in a landfill gas extraction infrastructure at a landfill is an integral part of the operation of a biodegradable waste landfill. Article 10 of the Landfill Directive requires that these and other costs of operating a landfill should be reflected in the prices charged by the operator. Collecting the landfill gas is an essential part of operating a landfill for biodegradable waste.

31. The Landfill Directive's aims and requirements make it clear that the production of methane is an inevitable and undesirable consequence of landfilling biodegradable waste. The generated gas must be collected and treated to minimise the effect of the environment, including the greenhouse effect. The first preference is for the energy in the landfill gas to be recovered and the utilisation of the methane is part of how a modern landfill should be operated.

32. The Landfill Directive is implemented in England by the Environmental Permitting Regulations and in Scotland by the Landfill (Scotland) Regulations 2003.

(e) The revised Waste Framework Directive 2008/98/EC and landfill tax

33. The Landfill Directive sets out specific rules for waste that is landfilled and for landfills themselves. However, the Waste Framework Directive is the overarching legislation for waste, including waste that is landfilled.

34. The current Waste Framework Directive (commonly referred to as the revised Waste Framework Directive) is Directive 2008/98/EC. This Directive sets out a "waste hierarchy" which ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When

waste is created, it gives priority to preparing it for re-use, then recycling, then recovery and last of all disposal. Landfill is at the bottom of the waste hierarchy.

35. Other options for dealing with biodegradable waste capable of generating gas, which are further up the hierarchy, include composting and anaerobic digestion, incineration meeting the energy recovery formula and a variety of other recovery options. These other options are favoured in preference to landfill because more waste materials are recycled or recovered and there is a greater reduction in the emission of greenhouse gases though more efficient technologies.

36. The Government Review of Waste Policy in England was published in June 2011. This states at paragraph 240 that it is clearly wrong to landfill waste that is a potential resource and goes on to say that landfill should be the waste management option of last resort and only for wastes where there is no better use.

37. The review states at paragraph 248 that reducing the amount of biodegradable waste to landfill is one important way of reducing greenhouse gas emissions.

38. Scotland's zero waste plan was launched in June 2010. The vision in the plan '*describes a Scotland where all waste is seen as a resource; Waste is minimised; valuable resources are not disposed of in landfills, and most waste is sorted, leaving only limited amounts to be treated'*. It also states that the '*Scottish Government will aspire to achieve an overall recycling and composting level of 70% and 5% (maximum) landfill for the total Scottish waste arisings by 2025'*.

39. Both governments' policies are clear in setting out that landfill is seen as the least effective means of utilising resources.

(f) The IPPC Directive

40. Directive 2008/1/EC on Integrated Pollution Prevention and Control (the IPPC Directive) applies to those landfills which are neither inert nor very small. The IPCC Directive applies to the Appellants' landfill site. Article 1(2) of the Landfill Directive provides that the relevant technical requirements of the IPPC Directive shall be considered to be met by meeting the requirements of the Landfill Directive.

41. The IPPC Directive is implemented in England by the Environmental Permitting Regulations and in Scotland by The Pollution Prevention and Control (Scotland) Regulations 2000.