COMPETITION COMMISSION INQUIRY INTO THE COMPLETED ACQUISITION BY STERICYCLE INTERNATIONAL LIMITED OF STERILE TECHNOLOGIES GROUP LIMITED

Initial submission to the Competition Commission by Stericycle International Limited

1. THE COMPANY

1.1 Stericycle International LLC is a US based company, which was incorporated on 27 August 2003 in the state of Delaware, USA. In the UK, Stericycle International LLC has one subsidiary, which is Stericycle International Limited. Stericycle International Limited is a holding company for three companies:

- White Rose Environmental Limited ("WRE");
- Healthcare Waste Limited, which was formerly Select Environmental Services; and
- Indigo Equity Holdings Limited.

1.2 Stericycle International LLC acquired the entire issued share capital of Sterile Technologies Group ("STG") on 27 February 2006 (the "Transaction"). Following the Transaction, Stericycle International LLC became the parent company of STG.

1.3 Stericycle International Limited and all of its subsidiaries, including STG (unless stated otherwise), are together referred to as "Stericycle" for the purposes of this submission.

1.4 A corporate structure diagram showing the post merger business is set out at Annex 1.

1.5 Stericycle and STG provide specialised waste management and related products and services to a wide variety of customers of various sizes operating in a wide spectrum of industry sectors. These services include the collection, transportation, treatment and disposal of waste together with consulting and compliance services as listed in Annex 2. Stericycle and STG's customers' UK Standard Industrial Classification ("SIC") are listed at Annex 3.

1.6 Prior to the merger, Stericycle had operations in England and Wales. The old STG company had operations in England, Wales, Scotland and Ireland.

1.7 Stericycle International Limited has not to date filed any accounts at Companies House. Stericycle's turnover in the UK was £38 million (the year ended

31 December 2005) for all of the services and products the group of companies offers to its customers. This figure is based on unaudited management accounts. The most recently audited accounts for STG, WRE, Healthcare Waste Limited and Indigo Equity Holdings Limited were provided as part of the off-the-shelf materials provided to the Commission on 5 July 2006.

1.8 STG's turnover in 2005 in the UK was £27.6 million (of which £3.1 million was generated in Northern Ireland) excluding inter-company revenues. This figure is based on unaudited management accounts as the audited accounts for the year 2005 have not yet been produced.

1.9 Stericycle International LLC is a leading global supplier, with a market capitalisation of $2.85 billion. It is a well established, publicly traded company with a presence in the US, Canada, Mexico, Argentina and the UK and it has recently established a presence in Japan. The company's single operating focus is providing integrated waste management solutions to a variety of customers and industries.

1.10 Prior to the merger, STG and Stericycle did not have any relationship with each other.

1.11 [✂]

2. THE ACQUISITION

2.1 STG's previous owners were financial investors that were not committed to developing the business over the long term period. The business was sold when the investors elected to pursue other opportunities and a suitable opportunity arose whereby they could realise the return on their investment.

2.2 [✂]

3. THE PURPOSE OF THE ACQUISITION

Stericycle acquired STG for the following reasons:

3.1 Stericycle wanted to expand geographically into new areas, such as Ireland and Scotland (where it did not have any presence) and regions in Wales and England where it had no, or very little, presence.

3.2 There was very little overlap in the location of facilities between STG and Stericycle, which meant that there would be no duplicity of location of facilities as a result of the

Transaction. The better geographical spread has given the company the ability to service all customers more efficiently and cost effectively.

3.3 Stericycle favoured a vertically integrated model and had traditionally invested in incineration which left it vulnerable in light of regulatory changes that mean less waste will be available for incineration. STG, however, had proportionally invested more in alternative technology facilities. Accordingly, STG's technology profile was very attractive to Stericycle. Stericycle was continuing to wrestle with the high cost of maintaining and operating incinerator plants in the face of declining volumes. The merger with STG is providing Stericycle with alternative technology sites, which are more flexible and cost effective to operate. Absent the acquisition, Stericycle would have had to invest in alternative technology plants and at the same time phase out its incineration capacity at an uncomfortably rapid rate. The greater scale of the merged business will ease this transition.

3.4 As the industry becomes increasingly regulated and new legislation and regulatory requirements become more onerous, combining the resources, experience and expertise of STG and Stericycle will allow Stericycle and its customers to achieve compliance quickly, more effectively and efficiently. The merged business will have more resources at its disposal to comply with the newly enacted national and European regulations.

3.5 Operating costs have been increasing steadily with rising utility, fuel, regulatory and other costs in the industry. Leveraging the STG infrastructure and in particular, its national footprint, will enable Stericycle to service its customers more efficiently and cost effectively to counter these increasing costs.

3.6 [✂]

3.7 NHS customers are increasingly moving towards a total waste management ("TWM") way of tendering for business following a template produced by the NHS Purchasing and Supply Agency as a recommended way to tender for hospital waste services. This is described in more detail in the "Relevant Markets" section below. By leveraging the resources, expertise and locational spread of STG facilities, Stericycle will be in a better position than before to compete in NHS TWM tenders, despite the fact that it cannot itself provide a TWM service except by subcontracting the domestic waste collection. Stericycle has lost some contracts (for example, the Kent contract and the Bath contract) because of its inability to provide this broader TWM offering.

3.8 The move towards TWM is presenting advantages to the larger general waste management companies such as Veolia (now merging with Cleanaway) and Biffa. The acquisition of STG gave Stericycle a greater scale and ability to meet the challenge from these operators.

4. THE EFFECT OF THE ACQUISITION

The benefits of the Transaction will include:

4.1 The creation of a stronger combined supplier to ensure a reliable and stable business partner to the NHS, as well as the company's other customers. Stericycle's single operating focus is offering integrated waste management services and globally it has continued to make the necessary investments to ensure that its operations function efficiently, safely and in compliance with all regulatory and environmental requirements. Both STG and Stericycle have, for example, invested heavily in new training and infrastructure to provide for proper segregation of healthcare risk waste in response to the requirements of the Hazardous Waste (England and Wales) Regulations 2005 (the "Regulations"). Other companies have been slow to do this. In bringing the companies together, the NHS and the company's other customers will have a reliable and stable business partner in this ever-changing regulatory environment driven by the government and European Union. This is particularly important given that key concerns for both public customers, private customers and regulatory bodies include:

- public safety;
- compliance;
- correct treatment and disposal;
- correct transportation;
- properly maintained trucking and treatment locations;
- efficient use of infrastructure;
- backup and disaster recovery systems.; and
- employee safety

These concerns are being addressed immediately as the company leverages the resources, expertise and experience of both Stericycle and STG.

4.2 The merged business will have a stronger infrastructure and greater resources to provide a fail-safe and continuous service, for example, during incinerator down time, thereby ensuring a reliable service for its customers.

4.3 An additional benefit will be the positive environmental impact as a result of optimising vehicle usage, reducing traffic patterns and fuel consumption.

5. THE RELEVANT MARKETS

The Product Market

5.1 The merged business is engaged in the provision of waste management services mainly, but not exclusively, to the healthcare and related sectors. Waste management services include the collection, transport, treatment and disposal of waste. As the Commission will see from Annex 1 and Annex 2, the merged business provides a number of services to a wide range of customers or potential customers. These services are interdependent and will usually be provided in the one contract, though not all services are always required by all customers. Because of this, the merged business submits that it would be incorrect to separate these services into discrete product markets. This would fail to reflect the way in which the market actually works.

5.2 A number of the merged business's competitors provide a much broader range of services. This demonstrates one of the difficulties in reaching a firm conclusion on market definition. The merged business has nevertheless identified relevant market segments as set out below.

5.3 The merged company is vertically integrated in that it is engaged in the collection of waste and also owns treatment facilities (incineration and alternative treatment), although it does both supply treatment services to other parties, and use the treatment facilities of other parties. Competitors tend to be vertically integrated to some degree, though not necessarily to the extent of the merged company.

The General Waste Market

5.4 The amount of waste generated in the UK each year is approximately 434 million tonnes.[1] This volume of waste includes for example, commercial, domestic, healthcare, pharmaceutical, confidential, radioactive, veterinary, agricultural and hazardous waste. The merged business is a competitor in this very large market because of the broad waste streams, which fall within healthcare risk waste, (which is waste generated in a healthcare setting) and because of the growing trend amongst large NHS customers to seek a TWM approach. The merged business, if it wishes to win such contracts, must offer a total waste management service. This will include the domestic waste element, although this element may be subcontracted out because of the specialist collection vehicles required. However, from the customer interface standpoint, the merged business will provide all services to the customer who will be unconcerned about whether any sub-contracting occurs.

5.5 Under TWM tenders, the NHS seeks to ensure that not only their healthcare risk waste is disposed of by contractors, but also their general waste, for example waste from the hospital kitchen. A fuller list of non-healthcare risk waste is set out in Annex 4. The merged business estimates that more than half of acute hospital waste management tenders are now TWM tenders.

5.6 STG has been awarded two TWM contracts, one for Rotherham NHS and a second for Hillingdon hospital and it has tendered for others (the Rotherham TWM contract was, however, lost on closure of the Rotherham facility). Stericycle has been awarded TWM contracts at Guy's & St Thomas hospitals in London, Bromley, Epsom and St Helier hospitals and the Royal Free Hospital (again in London). In a further example, Hemmings Waste Management has been awarded a TWM contract by the Bath consortium. The Kent consortium contract was lost by Stericycle to Polkacrest following a decision by the consortium to call for TWM bids.

5.7 This trend for TWM has seen the entrance on to the market of very large, heavily capitalised, multi-national waste service providers such as Biffa, Sita, Onyx and Cleanaway (Veolia) as well as regional contractors such as Hemmings Waste Management and Bywaters (Leyton) Limited. The old STG and Stericycle businesses and now the merged business have had to offer TWM services in order to compete. In this context, the merged business is a very small player.

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[1] Environment Agency website (extract attached at Annex 21)

5.8 Although the merged business's focus is on a more limited range of waste management activities than all of those included within the 434 million tonnes general waste market, many of the operators with whom it competes (for example Biffa, Sita, Onyx, Rentokil, PHS, Cannon Hygiene and Cleanaway) operate in this larger market.

The "Customer-based" Segment

5.9 As the merged business's focus has been on a more limited range of waste management activities, the merged business submits that the merger may be understood within the context of the limited customer categories (shown in Annex 3) who have a particular interest in services related to a more limited range of waste categories. By taking the categories of services listed in Annex 2 but limiting data to the categories of customers listed in Annex 3, the merged business has identified a narrower market segment.

5.10 This customer based segment, as defined above, includes Stericycle customers such as Astra Zeneca, a producer of healthcare waste (including, in particular, pharmaceutical waste) on a national level. Glaxosmithkline and Convance Laboratories Ltd are also customers of the merged business.

Hazardous Waste Segment

5.11 Hazardous waste extends to large volumes of waste that is not produced in a healthcare risk waste setting. This is clear from the size of the market, which the Environment Agency puts at 5 million tonnes per annum.[2]

5.12 An explanation of what constitutes "hazardous waste" is set out at Annex 5. Hazardous wastes include, for example, wastes from the leather, fur and textile industries, and wastes from the photographic industry.

Healthcare Risk Waste Segment

5.13 The industry refers to all waste derived from healthcare settings as "healthcare risk waste". This waste must be risk assessed before collection, but some of it may bear no risk. Not all healthcare risk waste is hazardous waste. The merged business estimates that 420,000 tonnes of healthcare risk waste is produced annually in the

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[2] See the extract from the Environment Agency website at Annex 6.

UK. Of that 420,000 tonnes, Stericycle estimates that 200,000 tonnes can, at the current level of segregation, be consigned directly to landfill, leaving some 220,000 tonnes which needs to be treated by alternative technology or incinerated prior to land filling.

The "Open Market" Supply of Incineration and Alternative Technology Treatment

5.14 The merged business is also active in the supply of waste disposal services, through incineration and alternative technologies only, to competitors, who are themselves active in the healthcare risk waste management sector.

5.15 Much of the incineration of alternative technology capacity owned by the merged business's competitors is used in-house in connection with their own customer facing waste collection and management business. The use of their capacity for open market purposes (that is, by third parties) is limited. Such markets are often defined in terms of open market supply activities and in-house supply by vertically integrated business is disregarded. The Office of Fair Trading, for example, did not include NHS self supply (i.e. in-house services) in its decision in relation to the completed acquisition by Synergy Healthcare Limited of Shiloh plc[3]. The Office decided that it was not appropriate to include the facilities owners' (including the NHS) self-supply capacity in the capacity figures for this open market.

5.16 The merged business understands that all operators with disposal facilities will supply the open market to some degree. Significant players are Compact Power (through its Avonmouth facility), Onyx (through its Tysley and Fawley facilities), Cleanaway (through Ellesmere Port) and General Waste Reduction, all of whom supply this open market. Following the recent acquisition by Veolia (of which Onyx is a subsidiary) of Cleanaway, a major new entity now exists in this market, through the combination of the Ellesmere Port, Tyseley and Fawley facilities.

5.17 The large incinerators at Fawley and Ellesmere Port should be included in the market definition, even though they also accept waste streams other than healthcare risk waste. Supply side substitution between incinerators accepting waste categories other than healthcare risk waste does occur and is not limited. Grundon's incinerator,

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[3] Completed acquisition by Synergy Healthcare Limited of Shiloh plc, The OFT's decision on reference under section 22 given on 11 October 2005. Full text of decision published 7 November 2005.

together with the Ellesmere Port and Fawley incinerators, which are very large incinerators, process a broad range of waste. Supply side substitution occurs between

(i) these large incinerators; and

(ii) smaller incinerators that use the bulk of their capacity to process healthcare risk waste, such as those owned by their merged business.

Ellesmere Port and Fawley are together licensed to accept 140,000 tonnes of healthcare risk waste per annum but also process large quantities of chemical and animal waste. The relevant extracts from the licences from Ellesmere Port and Fawley are set out Annex 7 and Annex 8 respectively.

5.18 Ellesmere Port's licenced capacity for healthcare risk waste is not just theoretical, as it is used and available. For example, Healthcare Environmental Services has a contract with the Ellesmere Port incinerator for the incineration of healthcare risk waste from Scotland. [✂]

5.19 The open market is a market for the incineration of waste that incinerators can (and are allowed to) incinerate. Insofar as Ellesmere Port, Fawley and other incinerators take waste other than healthcare risk waste, such as meat and bone meal waste, oil and radioactive waste, from a supply side perspective the market definition should be widened to include this other waste. Following the Waste Incineration Directive ("WID"), the merged business's own incinerators' licences have been widened so that they too can incinerate other materials (which are listed in Annex 11) such as foodstuffs and oily rags.

5.20 The merged business does not have access to all of the necessary information to make an assessment of the size of this market. It has estimated the throughput of its competitors in the open market, in the table below. However, the total of 41,380 tonnes calculated in the table below does not include the volumes incinerated by Cleanaway for Healthcare Environmental Services at Ellesmere Port and Cleanaway's other third party customers, or volumes processed at Fawley for Onyx's third party customers. The figure also does not include the throughput for other companies that may be competing in the open market of which the merged business is unaware.

Table 1: Throughput Figures in the Open Market for the Supply of Incineration and Alternative Technology Treatment of Healthcare Risk Waste

Company	Throughput in the open market (tonnes)*
Merged company (STG and WRE)	9,700[4]
Onyx	3,380 (Tyseley)
Onyx	[ ] (Fawley)
Cleanaway	[ ] (Ellesmere Port)
Compact Power	8000
GWR/MWMS	5000
Dundee Recycling	3000
NHS (Cambridge)	2500
Grundon	1400
Viridor	700
Peakes	700
Britcare	1000
Butlers	1000
WAS	5000
TOTAL	**41,380**

* These figures are Stericycle estimates.

5.21 It should be noted that current open market throughput accounts for only a small proportion of the total of almost 400,000 tonnes of incineration capacity installed and licensed for healthcare risk waste, which could be used to supply the open market as and when required. Suppliers other than the merged business have some 77% of this incineration capacity licensed for healthcare risk waste (306,500 tonnes out of 399,400 tonnes). [✂]

5.22 There is plenty of capacity in the open market. Grundons are replacing their incineration facility at Colnbrook and during the downtime have retained their customers and disposed of the waste on the open market. The open market did not have any problems in absorbing this volume, of approximately 6,000 tonnes per annum. Cliniserve is installing an autoclave at Littlehampton to process up to 8,000 tonnes per annum of waste. The merged business is presently taking waste from both Grundon and Cliniserve but these volumes will disappear when Grundon and Cliniserve's new sites are up and running, both of which are expected to be this year.

Market for Radioactive Waste

[4] Please see pages 18 of this submission for an explanation of how the figure of 9,700 is calculated

5.23 There is no separate market for "healthcare radioactive waste." From a supply side point of view or a demand side perspective, the market extends to all low level radioactive waste of which healthcare risk waste forms a very small part.

Current changes in disposal of Healthcare Risk Waste

5.24 The Regulations, which implement the EU Hazardous Waste Directive (the "EU Directive") require proper segregation of healthcare risk waste. The policy of the Department of Health ("DOH") and the policy and monitoring obligations of the Environment Agency are that healthcare risk waste producers must comply with the Regulations and therefore segregate (see Annexes 22 and 23).

5.25 Segregation of healthcare risk waste has been successfully introduced in Germany, France, the Netherlands and the Republic of Ireland. Following segregation in accordance with the mandatory requirements of the EU Directive in the Republic of Ireland, only 0.6kg per capita of population is now incinerated.

5.26 At present in the UK, where segregation programmes to comply with the law are only recently beginning to take effect, 19kg per capita of population of healthcare risk waste is incinerated. This high number is attributable to poor segregation and national over-capacity in incineration, which together mean that more waste is fed through incinerators than is required to be. If the UK is eventually as successful as the Republic of Ireland, the volume of HCRW that will be incinerated will be reduced to less than 4,000 tonnes, representing a reduction of 96%.

5.27 The Regulations will be complied with and therefore occasion change in the industry for the following reasons:-

- The UK government is obliged under Article 10 EC to ensure that the EU Directive is properly implemented, and this is clearly the policy of the DOH and the EA.
- Segregation makes commercial sense for customers and will be equally driven by economic forces. The merged business estimates that the NHS will save £11.1 million each year if it segregates its waste rigorously. Over five years this would amount to a saving of £55.5 million.[5] This figure represents

[5] Please see Annex 13 for an explanation of how these figures are reached.

the potential net gain to the NHS because proper segregation is a matter of discipline rather than cost.

- Improvements in segregation have already begun (see the documented experience of the University of Wales NHS Trust at Annex 12).

- There is no evidence to suggest that the Regulations will be disregarded, or any basis for concluding that this will be the case. The Environment Agency has made it clear that it will use its powers of prosecution to secure compliance. Any debate about the treatment of particular types of waste(for example sharps) is marginal and tends to be the consequence of the merged business' competitiors' assertion that, for instance, sharps contaminated with cytotoxic medicines can be treated by alternative technologies.

5.28 There is already significant overcapacity in the supply of incineration for healthcare risk waste. Because of the practical inflexibility of incinerators the merged business is obliged to incinerate waste that could be treated by alternative technologies. On average, capacity of two of the merged business's plants is idle. This is illustrated by the amount of "downtime - no waste (hrs)" row in the sample KPIs at Annex 14. As mentioned in the "Geographic Market" section below, incinerators have high fixed costs and so have to be run at near full capacity to maximise economic efficiency. Therefore waste is transported every weekend between incinerators and even between alternative technology and incinerator sites to feed incinerators that would otherwise (and may still) be running at under capacity and having costly downtime.

5.29 Improved segregation of waste, coupled with an expansion of alternative technology treatment, is reducing and will further significantly reduce demand for incineration of healthcare risk waste, exacerbating the situation of oversupply of incineration capacity.

5.30 Despite the fact that there is an increasing overcapacity in the incineration of healthcare risk waste, some investment in incineration continues as evidenced by the upgrade or replacement of incinerators by Grundon, Vetspeed and Onyx and the development and expansion of a new pyrolysis plant by Compact Power. Furthermore, and as mentioned previously, Scotgen (Dumfries) Limited is installing a new gasification (which is another form of high temperature disposal that is substitutable for incineration) site at Dumfries.

5.31 The merged company believes that the facilities listed above are being upgraded/opened (despite there being excess incineration capacity) for the following reasons:

i) Grundon's incinerator was the oldest incinerator licensed to treat healthcare risk waste, having been built in late 1980s. Grundon is also putting down a new municipal incineration facility and rolled this and the regeneration of the old incinerator into one so as to bring the old up to standard. The merged company understands that the new build was considered to be as cost effective as an upgrade.

ii) Vetspeed are bringing their facility up to meet the new standards required for facilities that treat animal and veterinary waste .

iii) Onyx's facility did not meet new standards and the company preferred a rebuild the facility rather than to upgrade.

iv) Compact Power are primarily looking at supplying small scale solutions to the domestic waste market and this is the focus of their new facility.

v) Scotgen (Dumfries) Limited are currently looking to a number of markets to evaluate what route they wish to take. The processing of healthcare risk waste is likely to be just one of the streams of waste that this facility will treat.

5.32 There is no evidence of current capacity constraints as is evidenced by the recent temporary closure of the Grundon incinerator and Grundon's subsequent putting on the market 6,000 tonnes, which had no apparent impact on market conditions. The merged business itself has available capacity [✂].

5.33 Switching from incineration to alternative technologies will not be constrained by the availability of treatment by alternative technologies. Approximately 121,000 tonnes of alternative technology treatment capacity has been installed since 1997 and several operators, including Britcare, Cliniserve, Grundon and the merged business have all recently put down or are planning to install autoclaves.

5.34 There are no substantial barriers to entry or expansion of alternative technology plant, as is evidenced by current examples of actual entry and the example of the merged business's Larkfield site where an autoclave will have been opened within nine months of the initiation of the project, as is evidenced by the Larkfield project schedule, which is set out at Annex 15.

5.35 The merged business estimates that 40 to 50 NHS primary care trust and NHS acute trust contracts are put out to tender each year so there is no shortage of business for new entrants to the industry to tender for. To put this in context, a new entrant with no current waste management operations would probably need 6,000 to 8,000 tonnes of waste per year to be viable. A large acute trust contract could produce up to 1,000 tonnes of healthcare risk waste per annum.

5.36 [✂]

The Geographic Market

5.37 The merged business considers that the waste management market in the UK is a national market for a number of reasons. First, conditions of competition are consistent across the country (though costs may vary). Second, waste is routinely collected and transported across the country for disposal. The maps in Annex 16 and Annex 17 show the extent to which waste is transported by Stericycle across the country. Competitors of the merged business, for example, Cliniserve and Polkacrest, also routinely transport waste long distances. Polkacrest transfers waste produced by the Kent NHS consortium to the Midlands, Avonmouth and Scotland.[6]

5.38 Such waste transfers may occur for a variety of reasons. First, available capacity at processing facilities, especially incinerators, may vary from time to time for operational reasons. Second, since the major players compete on a nationwide basis, if a large player is awarded a contract in a location where it does not currently possess disposal facilities, this waste will be transported to where available capacity currently exists. Distance is not an obstacle to such transfers. Loads are transported by road at night thereby reducing travelling times, environmental effects and costs. Thirdly, processing facilities, especially incinerators, require regular "downtime." The periods of downtime vary between the different types of incinerators. The downtime may vary between 72 and 96 hours, every 13 weeks, in addition to 24 hours every four weeks for a boiler clean. Certain STG sites experience downtime for 16 to 20 hours on a weekly basis for routine maintenance and boiler cleaning. During this time waste must be taken to other processing facilities. As a result waste may be moved, for example, between Ipswich and Leeds.

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[6] Cleanaway owns a large incinerator at Ellesmere Port, which is licensed to process 45,000 tonnes per annum of healthcare waste. Further, the Onyx site at Fawley has a capacity of 100,000 tonnes per annum to treat healthcare waste. Both of these sites accept waste from all over the country.

5.39 Processing facilities, especially incinerators, must be run at a capacity of at least 70 to 80 per cent in order to run efficiently. Incinerators suitable for certain healthcare risk waste must be heated to above 1000 degrees centigrade. To achieve such temperatures is a costly process and for technical reasons incinerators must run consistently at full operating temperature. This results in high fixed costs, hence incinerators must run at or near full capacity to maximise economic efficiency. Accordingly waste is distributed across the country to ensure that all facilities are working at optimum capacity.

5.40 The movement of healthcare risk waste around the country is governed by a regulatory framework. Although important, this regulatory framework is not especially onerous and to that extent, Stericycle and STG have felt comfortable outsourcing some of the transportation of waste.

These factors demonstrate that the market for waste management is national.

6. MARKET SHARE, INFORMATION ON COMPETITORS, CUSTOMERS AND SUPPLIERS GENERAL WASTE MARKET

The General Waste Market

6.1 The merged business collects from its primary customers 120,000 tones of waste per annum. The combined disposal throughput of STG and Stericycle through incineration and alternative technology is approximately 137,000 tonnes per annum. On the basis that the volume of controlled waste generated in the UK each year is approximately 434 million tonnes, the combined market share of STG and Stericycle is just 0.3%. Cleanaway's turnover is approximately £450 million, that of Biffa is approximately £650 million and Veolia's turnover is in excess of £400 million, while the combined UK turnover of STG and Stericycle is just £62.5 million.

The Hazardous Waste Segment

6.2 Using the same figures as in the paragraph above, the market share of the merged business is, on any basis, is less than 3%. The merged business has approximately 120,000/137,000 tonnes of collection/disposal throughput each year. In a market of 5 million tonnes, this amounts to a 2.7% market share.

The "Customer Based" Segment

6.3 On the basis of a customer based segment definition, with an estimated market size of £500 million, the market shares would be as set out as in the table below.

Table 2: Market shares

Company	Revenue (£m)	Market share (%)
STG	27.6	5.5
Stericycle	38.0	7.6
TOTAL	**65.6**	**13.1**

The Healthcare Risk Waste Segment

6.4 The merged business's market share (measured in volume terms) of the healthcare risk waste management sector is 28.5%, representing a tonnage collected from primary customers (NHS trusts and other healthcare risk waste customers) of 119,589 tonnes out of an estimated total of 420,000.

The Open Market Supply of Incineration and Alternative Technology Treatment

6.5 The normalised figure of 9,700 tonnes attributed to the merged business is calculated on the following basis. The merged business incinerated or treated 15,000 tonnes of third party waste in the last year. Cliniserve is the largest customer, at about 2,800 tonnes. The figure of about 15,000 tonnes will be reduced to 12,200 tonnes during 2006 when the new Cliniserve autoclave opens. Grundon is also currently using approximately 2,500 tonnes of the merged business's disposal capacity. The figure of 12,200 will be reduced to 9,700 tonnes per annum when Grundon reopens its incinerators during 2006.

6.6 Further to 1, the merged business with a combined open market throughput of 9,700 tonnes, has a normalised estimated market share of 23.4% based on a currently utilised (but under estimated) volume of 41,380 tonnes.

6.7 If the open market is considered to include other waste requiring the same treatment such as meat and bonemeal then the percentage controlled by the merged business is negligible.

Radioactive Waste Segment

6.8 The merged business handles only small quantities of healthcare radioactive waste and utilises only 2-3% of its licensed capacity of this waste.

6.9 Far greater volumes of low level radioactive waste are incinerated at Fawley, including waste from Hunterston B power station in Scotland. The locality of incinerators is particularly insignificant in relation to the waste. This is because low

level radioactive waste must be separately disposed of,[7] and therefore segregated, and because it is also relatively high value, it is economic to transport it to distant incineration facilities.

6.10 The merged business is not the only providers of low level and very low level radioactive waste disposal. The parties have identified the following sites, other than STG/WRE sites, which they believe can incinerate radioactive waste. The data has been collected by comparing the EA Pollution Inventory records for 2004 for waste incineration with the records for releases of radioactive substances to air.

Table 3: Radioactive Waste

Company	Authorisation	Address
GlaxoSmithKline Research and Development Ltd	AN3524	Stevenage, Hertfordshire
Onyx UK Ltd	AL5160	Hythe, Southampton
S Grundon (Waste) Ltd – *See Note 1*	AH9987	Colnbrook, Slough
Addenbrookes Hospital – *See Note 2*	AF1730	Addenbrookes, Cambridge
Viridor Waste Management Ltd	BI2931	Plymouth, Devon

Note 1: This plant is currently closed but is due to be opened later this year.

Note 2: This plant only deals with its own hospital's radioactive waste

6.11 The Cleanaway incinerator at Ellesmere Port also has significant radioactive disposal capacity. Further, the Environment Agency reports on its website that "Low level waste consists of lightly contaminated materials and is disposed of by burial at approved sites, principally at the surface repository at Drigg in Cumbria."[8]

6.12 Municipal incinerators have the capability to incinerate low level radioactive waste, if the appropriate licences were applied for by the councils. There is nothing that the parties are aware of that would prevent this from happening.

6.13 Where treatment is not required the waste may also (subject to authorisation under the Radioactive Substances Act 1993) be discharged to sewer, to air, or direct to landfill.

[7] Radioactive Substances Act 1993.

[8] Please see the page from the Environment Agency's website at Annex 18.

7. BUYER POWER

7.1 The merger company's customers include major entities, whether they be NHS trusts or commercial customers. NHS trusts are increasingly forming consortia which have considerable buyer power. Examples include the All-Wales consortium, the Kent consortium, the north east consortium and the Merseyside consortium. These NHS consortia exercise their buyer power via rigorous procurement processes. Buyer power is often therefore concentrated and very substantial. The Kent consortium is an example of NHS buyer power being exercised. The WRE tender offer could not meet the Kent consortium's specifications for a TWM contract, and so it was awarded to Polkacrest.

7.2 Furthermore, the NHS always has the option to treat waste itself. The merged companies believes that for less than £1m, NHS trusts could install their own facility, that could deal with up to 8,000 tonnes of waste per annum. This amount would service a sizable consortium. The NHS has the engineers and suitable sites available to it and could install a site in a short space of time. In fact, the NHS owns 3 incinerators, one at Addenbrookes Hospital in Cambridge, a second at New Cross Hospital in Wolverhampton and a third at Singleton hospital in Swansea. The Swansea facility is managed by Dalkia, but is owned by the NHS. The New Cross and Addenbrookes facilities process commercial waste, as well as waste generated by the hospitals.

7.3 The merged business's commercial customers also have substantial buyer power. Significant commercial customers could also choose to provide their own autoclave facilities for dealing with their waste as an autoclave can be set up on a customer's site without substantial cost. They may also install their own incinerators. GlaxoSmithKline already has two incinerators, one at Stevenage and a second at Harlow. This possibility is a further potential constraint on the merged business.

8. BARRIERS TO ENTRY AND PRICING CONSTRAINTS

8.1 Barriers to entry are not substantial in relation to the collection and transportation of waste. While Stericycle and STG do own some of their own vehicles, they also sub-contract the transportation of waste. The regulatory framework governing the haulage of healthcare risk waste is not particularly onerous and therefore does not present any substantial barriers to entry. Further, the vehicles used to move healthcare risk waste (even those with refrigeration) are general purpose and not specialised. They can also be used for business other than transporting healthcare risk

waste. These vehicles do not undergo exceptional wear and tear as loads are lighter than normal transportation loads. Equipment used in the business is "off the shelf" trucking equipment which may be purchased second-hand or leased at low capital investment.

8.2 In terms of waste disposal, a high proportion of waste flows to land-fill sites in common with municipal waste. In relation to waste that must be treated, autoclave, pyrolysis, steam sterilisation and other alternative technologies are increasingly preferred to incineration, which has traditionally been the method used to treat waste. They operate at a significantly lower cost than incineration and planning consents are also relatively easy to obtain for non-incineration technology facilities.

8.3 Alternative technology treatment facilities, which are capable of treating at least 90% of the 220,000 tonnes of the healthcare risk waste that currently requires alternative treatment or incineration (see paragraph 5.26 above), require relatively modest capital investment of £300,000 to £450,000 per plant for a small plant the size of the merged business's autoclave at Reading and £750,000 for a continuous process steam sterilisation unit. Planning permission and Environment Agency licences are also easier to obtain for alternative technology facilities. The timescale for development of alternative technology sites is not long. The merged company understands that the EA is required to respond to permit applications within four months. However, as it can and does ask for an extension, it usually takes between 6-9 months to obtain a permit. All national alternative technology facilities having been developed in the last nine years. More recently, Britcare, Cliniserve, Grundon and Waste Solutions (which was subsequently acquired by WRE) have put down or are planning to install autoclaves. The minutes of two of the merged business's own senior management team meetings (attached at Annex 19 and Annex 20) indicate development of alternative technology capacity at Larkfield. The development (and licensing) of the site is expected to take approximately nine months, as indicated by the Larkfield project schedule, which is set out at Annex 15.

8.4 The process of establishing an incinerator is more difficult, but only 10% of healthcare risk waste that requires some form of treatment requires high temperature treatment if segregated to a reasonable standard and this could be reduced to 5% with better segregation, which is now required by law. This minimum of 5%-10% can easily be sub-contracted. Investment in new and refurbished incineration nevertheless continues. Examples include the upgrade or replacement of incinerators by Grundon, Vetspeed and Onyx of Tysley & Company Power Building a much bigger pyrolysis

plant. Moreover, Scotgen (Dumfries) Limited is opening a new Gasification facility (which is another form of high temperature disposal and which may be substituted for incineration) in Dumfries in or around September 2007 which will bring up to 30,000 tonnes per annum of capacity into the market.

8.5 As a general observation, high capital investment is not required in this market. Stericycle estimates that between 2.5 to 3.5 per cent of the company's revenues are spent on capital spending on existing equipment. Capital investment for both maintenance and growth is estimated at between 4 per cent to 5 per cent of revenues.

8.6 There have been new entrants into the business in the last five years as detailed in the table below.

Table 4: New Entrants

Company	Experience/Progress
Cliniserve	Now opening an alternative treatment facility at Littlehampton. Potential further sites in the south
Healthcare Environmental Services	Installed an autoclave in Glasgow approximately 5 years ago.
Waste Solutions	Installed an autoclave in Merthyr Tydfil approximately 2 years ago.
Vetspeed Limited	Vetspeed is currently upgrading its incinerator in Cambridge.
MWMS, formerly General Waste Reduction of Malmesbury	Considering opening a site at Rochester
WAS	Was indicated interest in introducing sites at Bristol and Nottingham)
Grundon	Renewing its incinerator
Compact Power	Has invested in a 100% increase in pyrolysis capacity in 2004 now being trialled on clinical waste but destined also for the component of domestic waste that needs to be incinerated, and is now currently developing "Avonmouth 2", which is an alternative technology plant that will increase significantly Compact Power's capacity in 2006/2007
Butlers	Closed its incinerator in Bradford approximately two years ago and replaced it

	with an autoclave
Torgam	Installed an autoclave at Rotherham approximately five years ago, this was subsequently acquired by STG. This autoclave has subsequently been closed.
Synergy	Opened sites at Derby and Exeter, which have subsequently closed
Scotgen (Dumfries) Ltd	Opening gasification (high temperature disposal plant) at Dumfries by January 2008
Tyseley Waste Disposal Limited	Has recently renewed its treatment facility stocks

8.7 Major NHS contracts normally run for three to five years. The merged business estimates that 40 to 50 NHS trust contracts are tendered every year. New entrants into the market, or those looking to expand, will have no shortage of business to tender for. The many smaller customers have more casual contracts which are in principle contestable at all times.

8.8 Furthermore as detailed in the "Buyer Power" section above, the merged business's customers (commercial, industrial and NHS customers) may all opt to treat waste themselves by installing their own facilities.

9. LEVEL OF PRICING AND QUALITY OF PRODUCTS

9.1 The following figures (which are all-in prices that include all aspects of waste arrangement including collection and transport) represent the average prices charged for waste that can be put directly to landfill, or that requires alternative treatment or incineration:

- approximately £50 per tonne for waste put directly into landfill;
- approximately £350 per tonne for waste that must be treated by alternative technology;
- approximately £450 per tonne for waste that is incinerated.

9.2 [✀]

9.3 While the existing contracts (which allow for blended rates) continue, the blended rates will continue to be applied. New contracts will allow for separate rates figures to be produced, as segregation will be more rigorously enforced and alternative

technologies will be more prevalent in the future. This will also provide a clear incentive to customers to enhance segregation practices, as they will be readily able to calculate the savings that they can achieve by reducing the amount of waste destined for incineration.

9.4 [✂]

10. CONCLUSION

10.1 The merger will not give rise to any lessening of competition in any economic market. The merged company will continue to be subject to competition from a substantial number of companies, large and small. Those competitors in some cases have been, and will be, able to offer a wider range of services (though in some cases a narrower range). The merged company faces the substantial buyer power of the NHS Trust consortia and other large customers. Further, the merger will give the combined company the resources to meet the changing regulatory environment and offers significant benefits for customers, including the NHS.