### COMMERCE ACT 1986: BUSINESS ACQUISITION SECTION 66: NOTICE SEEKING CLEARANCE

Date: 22 March 2004

The Registrar Business Acquisitions and Authorisations Commerce Commission P O Box 2351 WELLINGTON

Pursuant to s 66(1) of the Commerce Act 1986 notice is hereby given seeking **clearance** of a proposed business acquisition.

### **PART I: TRANSACTION DETAILS**

#### 1. The business acquisition for which clearance is sought:

- 1.1 The business acquisition for which clearance is sought by Visy Industrial Plastics (NZ) Limited ("**VIP**") is the acquisition by VIP of the plastics packaging business and assets of ACI Operations NZ Limited ("**ACI**") from ACI.
- 1.2 VIP and ACI have entered into an agreement (the **"Agreement**") pursuant to which VIP will acquire ACI's business of manufacturing, distributing and supplying:
  - (a) polyethylene terephthalate ("**PET**") beverage containers;
  - (b) PET food containers;

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- (c) plastic carbonated soft drink ("CSD"), water, food and hot-fill closures;
- (d) pails; and
- (e) crates,

and assets incidental to that business (the "**acquisition**"). A copy of the agreement is **attached** as Appendix A. We note that this agreement is confidential.

- 1.3 The Agreement is conditional on VIP obtaining Commerce Commission clearance for the acquisition by [ ]. The parties have targeted [ ] as the date upon which they hope to have satisfied this condition. The parties are endeavouring to meet this deadline in order to:
  - (a) [

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- (b) minimise any detriment to the business that may follow from the commercial uncertainties associated with the transaction (eg, potential loss of customers); and
- (c) ensure security of supply to existing customers of the business.

### Summary of Application

- 1.4 VIP considers that the relevant markets are:
  - (a) the market in which large plastic pails are manufactured and wholesaled (although the aggregation in this market borders on *de minimis*); and
  - (b) the market for the manufacture and wholesaling of non-alcoholic beverage containers (being containers made from materials including glass, aluminium and PET, and used for CSD, water, juices and isotonics).
- 1.5 VIP does not consider that the acquisition will substantially lessen competition in the market in which large plastic pails are manufactured and wholesaled as VIP's current share of sales in this market is currently very small (less than []%), whilst ACI has a []% share of sales.
- 1.6 VIP requests the Commission to consider the application on the assumption that VIP, VisyPET (NZ) Limited and Visy Rigid Packaging (NZ) Limited (which both trade as VisyPak ("**VisyPak**")) are associated. VIP does not consider that the acquisition will substantially lessen competition in the market for the manufacture and wholesaling of non-alcoholic beverage containers (being containers made from materials including glass, aluminium and PET, and used for CSD, water, juices and isotonics) for the following reasons:
  - (a) the acquisition is occurring in an industry in which:
    - (i) the merged entity would have a [ ]% share of the market (VisyPak currently has a [ ]% share and ACI has a [ ]% share);
    - there is significant excess capacity of approximately 20% (excluding VisyPak) in the PET segment of the market and 20-30% in the beverage can segment of the market;
    - (iii) there are no barriers to expansion of current production capacity (other than the excess spare capacity) in the PET segment of the market;
    - (iv) the assets used in the PET production process can relatively easily be converted and used to produce different products;
    - (v) there are low barriers to entry to the PET segment of the market; and
    - (vi) the purchasers of PET bottles ("fillers") have the option of selfmanufacturing PET bottles, thereby constraining the merged entity;
  - (b) the output of the market participants is not sold to end consumers but rather to other businesses (fillers) as inputs. These business customers have significant countervailing power. The industry is characterised by a high proportion of uncontracted customers, enabling customers to switch suppliers relatively easily and quickly.

### THE PERSON GIVING NOTICE

### 2. Who is the person giving this notice?

2.1 Visy Industrial Plastics (NZ) Limited
 C/- Visy Industrial Packaging Holdings Pty Limited
 Corporate Head Office
 Level 17, 644 Chapel St
 South Yarra
 Victoria
 AUSTRALIA 3141

Attention:	Brian Cridland, Chief Executive Officer
Telephone:	+61 3 9815 8400
Facsimile:	+61 3 9815 8388
Email:	brian.cridland@visy.com.au

2.2 All correspondence and notices in respect of this application should directed in the first instance to:

Russell McVeagh Level 24 Mobil on the Park 157 Lambton Quay WELLINGTON

Attention:	Nicola Purvis
Telephone:	04 495 7750
Facsimile:	04 495 7579
Email:	nicola.purvis@russellmcveagh.com

### CONFIDENTIALITY

3. Do you wish to request a confidentiality order for:

#### 3.1 The fact of the proposed acquisition?

No.

### 3.2 Specific information contained in or attached to the notice?

Yes, confidentiality is sought in respect of all items deleted from the public copy of this notice (including any attachments omitted) ("**confidential information**"). These items are indicated in the non-public version in square brackets.

Confidentiality is sought indefinitely or until VIP sooner advises the Commission that it can make public disclosure of those details.

In respect of the confidential information, a confidentiality order is sought under section 100 of the Commerce Act 1986 ("**Act**") and confidentiality is also claimed under section 9(2)(b)(ii) of the Official Information Act 1982 on the grounds that:

- (a) the information is commercially sensitive and valuable information which is confidential to the participants; and
- (b) disclosure of it is likely to give unfair advantage to competitors of the participants and/or to unreasonably prejudice the commercial position of the persons involved.

VIP requests that it be notified of any request made to the Commission under the Official Information Act for the confidential information, and that the Commission seeks VIP's views as to whether the information remains confidential and commercially sensitive, at the time responses to such requests are being considered.

### DETAILS OF THE PARTICIPANTS

### 4. Who are the participants (ie the parties involved)?

### 4.1 The Acquirer

Visy Industrial Plastics (NZ) Limited C/- Visy Industrial Packaging Holdings Pty Limited Corporate Head Office Level 17, 644 Chapel St South Yarra Victoria AUSTRALIA 3141

Attention:	Brian Cridland, CEO
Telephone:	+61 3 9815 8400
Facsimile:	+61 3 9815 8388
Email:	brian.cridland@visy.com.au

### 4.2 **The Owner of the Business**

ACI Operations NZ Limited 752 Great South Road Penrose AUCKLAND

Attention:Greg Ridder, Chief Financial OfficerTelephone:+61 3 9236 2324Facsimile:+61 3 9819 2904Email:greg.ridder@acipackaging.com

4.3 All correspondence and notices in respect of this application should directed in the first instance to:

Russell McVeagh Level 24 Mobil on the Park 157 Lambton Quay WELLINGTON

Attention:	Nicola Purvis
Telephone:	04 495 7750
Facsimile:	04 495 7579

### 5. Who is interconnected to or associated with each participant?

#### Visy Industrial Plastics (NZ) Limited (VIP)

5.1 VIP is a New Zealand company wholly owned by Visy Industrial Holdings (NZ) Limited ("**VIH**"). An ownership structure diagram showing ownership of the companies interconnected with VIP ("**Salvage Group**") is provided in Appendix C.

#### Visy Industrial Holdings (NZ) Limited (VIH)

5.2 VIH is New Zealand company wholly owned by an Australian company, Visy Industrial Packaging Holdings Pty Ltd ("**VIPH**"). In addition to VIP, VIH also owns Visy Industrial Products (NZ) Limited ("**VIPNZ**"), which is primarily a manufacturer of steel products.

### Visy Industrial Packaging Holdings Pty Ltd (VIPH)

5.3 VIPH is owned by Salvage Pty Ltd ("Salvage"), [

]. VIPH was previously a subsidiary of Visy Industries Australia Pty Ltd as explained in paragraph 5.7 below.

### VisyPET (NZ) Limited, trading as VisyPak (VisyPak)

5.4 VisyPak is a member of a group of companies which are ultimately owned by Pratt Holdings Pty Ltd. An ownership structure diagram showing ownership of the companies interconnected with VisyPET (NZ) Limited ("**Pratt Group**") is provided in Appendix C. Visy Rigid Packaging (NZ) Limited (which also trades as VisyPak) is also a member of the Pratt Group.

### Relationship between VIP and VisyPak

- 5.5 VIP is an independent company that is not controlled by, or a related body corporate of, any member of the Pratt Group, including VisyPak. There are, however, certain connections between members of the Pratt Group and members of the Salvage Group.
- 5.6 In February 2001, Visy Industries Australia Pty Limited, a member of the Pratt Group, acquired the Southcorp Packaging business in Australia and New Zealand, and began trading that business using the name VisyPak.
- 5.7 In 2002, the industrial packaging division of VisyPak, VIPH (the company referred to in paragraph 5.2 above) was acquired, through an arms length sale process, by a consortium including Salvage. In 2003 Salvage bought out the other member of the consortium and is now the sole owner of VIPH [].
- 5.8 Raphael Geminder is the sole director and shareholder of Salvage, and the sole director of VIPH, VIH and VIP. Whilst he is also currently a director of certain companies in the Pratt Group (by invitation), he does not participate in, and abstains from, any decisions that may create potential conflict with any member of the Salvage Group.
- 5.9 **[**

- 5.10 VIP requests the Commission to consider this application on the assumption that it is associated with VisyPak. However, VIP reserves its position on this matter. VIP will provide further information to the Commission on the relationship between the two companies should it become necessary.
- 5.11 VisyPak has provided VIP with data in relation to the beverage container market in New Zealand under a confidentiality agreement between VIPH and Visy Industries Australia Pty Ltd, which was entered into for the purposes of this application. VisyPak is a relatively new player in the PET industry (it acquired its production assets in February 2001), and has advised VIP that as a result it has not been able to provide VIP with concrete data in respect of some of the questions asked in this application. Where estimates or approximations are used that have been supplied by VisyPak, they are clearly marked.

### ACI Operations NZ Limited (ACI)

- 5.12 ACI is a New Zealand company wholly-owned by Owens-Illinois (NZ) Limited, which is owned by ACI International Pty Ltd. ACI International Pty Ltd is ultimately owned by Owens-Illinois Inc., a publicly-listed company in the United States. An ownership structure diagram showing the companies interconnected with ACI ("ACI Group") is provided in Appendix C.
- 6. Does any participant, or any interconnected body corporate thereof, already have a beneficial interest in, or is it beneficially entitled to, any shares or other pecuniary interest in another participant?
- 6.1 No, other than the connections between VIP and VisyPak as set out above at paragraphs 5.5 to 5.9(b).
- 7. Identify any links, formal or informal, between any participant/s including interconnected bodies corporate and other persons identified at paragraph 5 and its/their existing competitors in each market.
- 7.1 There are no other links between the participants.
- 8. Do any directors of the "acquirer" also hold directorships in any other companies which are involved in the markets in which the "target company/business" operates? Please provide details of:
  - directors' names;
  - the other companies;
  - the markets involved.
- 8.1 No, other than the directorships disclosed above at paragraphs 5.5 to 5.9(b).

### 9. What are the business activities of each participant?

Please include a summary of all the business activities of each participant including all interconnected bodies corporate thereof and any other business identified in question 5. (Note the comments on relevancy in paragraph 5 above. It is sufficient to refer in general terms to activities in which there will be no aggregation.)

9.1 VIP manufacturers a range of products from polyethylene, VisyPak is a PET beverage bottle and beverage can manufacturer, and ACI manufactures a range of plastic packaging products. As discussed in section 11, the only segment of the market in which there is a significant aggregation of business activity as a result of the proposed transaction is in the manufacture of PET bottles. Given the significant substitutability between PET bottles and alternative beverage containers, VIP provides below an overview of the PET bottle industry, the aluminium can industry and the glass bottle industry. Following this an overview of each of the participants' operations is provided.

### Overview of the PET bottle industry

9.2 The supply chain in the PET industry can be divided into three levels. First there is the production of inputs - the polymer and the resins. Secondly, there is the process of converting such inputs into packaging. PET can be used to make CSD bottles, water and juice bottles, salad domes, biscuit trays and other food containers (such as peanut butter jars). Entities performing this function are often referred to as "converters". Thirdly, there is the "filling" of packages by downstream entities such as (in relation to CSD bottles) Coca-Cola Amatil (NZ) Limited ("CCA") and Frucor Beverages Limited ("Frucor"). These entities are often known as "fillers".

### How PET bottles are made

- 9.3 A PET bottle is made from a "pre-form". A pre-form has a completely moulded neck thread of a bottle, but the body is a short tube (similar to a test tube) with one end closed. The wall thickness is about eight to twelve times thicker than the final bottle. Pre-forms are made using the injection moulding process.
- 9.4 The pre-form is then "blown-up" with a blow-moulding machine to form a PET bottle. This is known as stretch blow moulding. The PET bottles can be produced with either single-stage or two-stage blow-moulding equipment. In the single-stage process, the injection moulded pre-forms are made, then sent directly to the blow-moulding station, which is integrated in the same machine. They are then blow-moulded into full PET bottles. In the two-stage process, the pre-forms are moulded in a dedicated injection moulding machine which produces fully cooled pre-forms. A separate machine is then used to blow mould the pre-forms into PET bottles. The two-stage process is more capital intensive, but is capable of producing greater output. Further technical information relating to injection moulding and blow moulding is provided in Appendix B.
- 9.5 PET bottles can therefore be manufactured on various scales and at various efficiencies. Whilst large scale production is most cost effective from a capital perspective utilising a two-stage process, it is also possible using a single-stage process, as utilised by ACI, Amcor Packaging Limited ("Amcor") and Alto Plastics Limited ("Alto") in New Zealand. Other manufacturers of PET bottles in New Zealand include TSL Plastics Limited ("TSL"), Link Plas Limited ("Link Plas") and Vertex Pacific (NZ) Limited ("Vertex").
- 9.6 Pre-forms are able to be imported or purchased locally from a manufacturer. Accordingly a manufacturer or filler of PET bottles can purchase pre-forms from a third

party and then utilise its own blow moulding equipment (as opposed to single-stage or two-stage PET machinery) to manufacture PET bottles. Self or in-house manufacture, therefore, provides a significant constraint on the merged entity's prices.

9.7 Further details in relation to this are provided in sections 18 and 27.

### Identity of participants

- 9.8 All resin in New Zealand is imported. The suppliers of resin and PET manufacturing machinery are identified in section 37.
- 9.9 There are approximately seven companies who "convert" PET resin into PET bottles within New Zealand, including both VisyPak and ACI. More information about the players at this level of the market is provided in section 16. The "fillers" segment of the market is dominated by CCA.

] The next five largest fillers take between []% and []% of the PET bottles produced each. More information on the "fillers", who are VisyPak and ACI's customers, is provided in section 41.

### Overview of aluminium beverage can industry

9.10 Aluminium beverage cans may be used to hold CSD, beer, ready to drink mixed alcoholic drinks ("**RTDs**") and energy drinks. The supply chain in the beverage can industry can also be divided into three levels. There is the production of inputs (the aluminium sheet and other key materials), there is the converting of these inputs into packaging, and there is the "filling" of packages by downstream entities such as CCA (in relation to CSD), and DB Breweries Limited ("**DB**") and Lion Nathan Limited ("**LN**") (in relation to beer).

#### How beverage cans are made

- 9.11 A beverage can has two primary components: the body and the end.
- 9.12 The body is formed from aluminium sheet (supplied in the form of a coil) which is formed into the basic can shape using two standard metal forming operations known as cupping, and drawn and wall ironed ("**DWI**") forming. Initially the sheet/coil is fed into a mechanical press, which blanks out a cup. This cup is approximately 90mm in diameter and 40mm high. This cup is then fed to a bodymaker that forms the cup into the basic shape of the can using the DWI process. The body is then washed, and decoration applied (the external graphics or "label") by applying ink directly to the surface of the can. The internal surface of the can is then lined to protect the aluminium body from the drink product it will contain and finally the neck is formed to a smaller diameter to match the end diameter. The ends are manufactured again from coils of aluminium. Two different coils are used, one for the end proper and one for the tab material.
- 9.13 The can body and end are supplied separately to the filler. The filler will fill the can body, and, in an immediately following operation, seam the end onto the can body. The seaming process involves rolling a lip in the end and the can body together forming and hermetic seal.
- 9.14 Amcor and Visy Rigid Packaging (NZ) Limited service the aluminium can industry, with small quantities of filled cans being imported. Visy Rigid Packaging (NZ) Limited supplies both the brewers in NZ being LN and DB. Amcor supplies the remainder of the market, which is most of the CSD cans required in New Zealand. Visy Rigid Packaging (NZ) Limited also trades as VisyPak.

9.15 **[** 

]. This has been driven by the preference for glass packaging in the premium beer market in New Zealand.

### Overview of glass bottle industry

- 9.16 Glass bottles are made from silica sand, soda ash and limestone. There are high energy requirements (electricity and gas) involved in the manufacturing process. ACI's glass container division is the only local glass container manufacturer in New Zealand. The machinery used is specific, and is restricted to manufacturing glass bottles and jars from 250ml to 1.0 litre.
- 9.17 In addition to ACI's share of the glass market, which is approximately []%, there is a significant level of imports. These include wine bottles (from Europe), soft drink bottles (from the Middle East), and beer bottles (from Asia). Glass can be used for CSD, juices and water.

### Overview of participants' operations

VIP

- 9.18 VIP's plant at Onehunga in Auckland manufactures products from polyethylene materials. This includes a limited range of industrial bottles from 500ml to 100ltr, as well as some retail market products such as petrol containers, watering cans, piggy banks etc. VIP has also developed its own 10ltr pail and it has [
  - ]. To date [ ]. VIP currently has no PET container capability.

VIPNZ

9.19 VIPNZ is a steel business operating at an Avondale site. It also operates a more limited plastics business. VIPNZ manufactures products which are complementary to the products produced by VIP, although it is more limited in its range of products, restricted to 10ltr, 15ltr, 20ltr and 25ltr containers. Like VIP, VIPNZ does not have any PET container capability.

Visy Industries Beverage Packaging (including VisyPak)

- 9.20 Visy PET (NZ) Limited is a PET beverage container manufacturing operation (trading as VisyPak) with production facilities in Auckland and Christchurch. Both operations produce a range of PET beverage containers, ranging in size from 390ml to 2.25l and used for both CSD and water, [ ].
- 9.21 Other VisyPak divisions operating in the New Zealand beverage container market include VisyPak Beverage Can (a division of Visy Rigid Packaging (NZ) Limited), which manufactures aluminium beverage cans ranging in size from 330ml to 500ml, from its plant in Auckland, and VisyPak Carton Systems, which markets, distributes and services Combibloc and Purepak liquid paperboard cartons ("LPB") (250ml to 1.5 litres) and filling equipment. Neither of these two divisions have any PET beverage container manufacturing capability.

ACI

- 9.22 ACI manufacturers and distributes a range of plastic packaging products. These products can be divided into five categories:
  - (a) PET beverage containers (including warm-fill and hot-fill) for CSD, water, juice and isotonics.

- (b) PET food containers. These are used for applications such as peanut butter and honey containers.
- (c) Closures. These are the tops that seal the PET container products. They include CSD, water and juice bottle closures, hot-fill closures, and non-beverage closures. ACI manufactures non-beverage closures (which can be either standard or tamper-evident), but imports beverage closures for CSD, water, juice and isotonics from ACI Plastics Packaging Pty Limited.
- (d) Pails. These are used to contain paints, chemicals, food and inks. They are manufactured to be leak-proof with an air-tight seal, drop-resistant and resistant to environmental stress cracking.
- (e) Crates. These include bins and tote boxes, and are used for milk, produce, general storage, pharmaceutical, fish and meat storage and home storage. The crates are made from HDPE and polypropylene.
- 9.23 As a proportion (of sales revenue) of ACI's business that VIP is acquiring, plastic pails represent approximately [ ]% and PET beverage containers represent approximately [ ]%. The balance [ ] of ACI's business by sales is generated by the other products referred to in paragraphs 9.22(b), (c) and (e).
- 9.24 ACI is the preferred supplier of PET CSD and water containers and closures [
  - ].
- 9.25 ACI has two manufacturing plants: the East Tamaki plant which is the major administrative and manufacturing facility, and the Christchurch plant which manufactures PET containers only. In addition, it has three warehouses located in Christchurch and Wellington.
- 9.26 ACI also operates a glass container division in New Zealand as described in paragraph 9.10. [ ].

Amcor

9.27 Amcor is a global packaging company with annual sales of approximately A\$11 billion. It is based in Australia and has operations throughout Australasia, Asia, Europe and the Americas. Amcor produces a range of plastic, fibre, metal and glass packaging products, PET containers, plastic and metal closures, along with packaging-related services. This includes, in New Zealand, the manufacture of PET bottles and aluminium cans.

Alto

9.28 Alto is a privately owned company and produces products for both the domestic and international market. Alto specialises in injection moulding, blow moulding and injection stretch blow moulding production for PET products.

### 10. What are the reasons for the proposal and the intentions in respect of the acquired or merged business?

10.1 The acquisition will complement VIP's existing business by:

- (a) facilitating further investment in new plant and equipment;
- (b) creating a capability for the manufacture of closures and crates;
- (c) expanding VIP's pail making operations in New Zealand; and
- (d) facilitating improved efficiencies in the manufacturing process.
- 10.2 Following the acquisition, VIP currently intends to on-sell the two stage PET manufacturing assets, subject to receiving a commercially acceptable offer for those assets. VisyPak is a potential buyer for the two stage PET equipment and VIP has entered into discussions with VisyPak. VIP does not currently have the expertise to manufacture two stage PET beverage containers.
- 10.3 The acquisition is occurring in conjunction with the acquisition in Australia by Visy Industrial Packaging Holdings Pty Ltd of ACI Plastics Packaging Pty Ltd's non-beverage rigid plastic business.

### PART II: IDENTIFICATION OF MARKETS AFFECTED

### HORIZONTAL AGGREGATION

- 11. Are there any markets in which there would be an aggregation of business activities as a result of the proposed acquisition?
  - Are there any markets in which the "acquirer" (and/or any interconnected or associated company as identified in question 5); and
  - The business to which the assets relate; or
  - The "target company" (and/or any interconnected or associated company identified in question 5)

are both engaged?

- Please identify for each market:
- product(s), functional level, geographic area, and (where relevant) timeframe;
- the specific parties involved;
- the relationship of those parties to the acquirer or target company as the case may be.
- 11.1 In summary, VIP considers that there are two markets in which there will be an aggregation of business activities as a result of the proposed transaction:
  - (a) the market in which large plastic pails are manufactured and wholesaled (although the overlap borders on *de minimis*); and
  - (b) the markets for the manufacture and wholesaling of non-alcoholic beverage containers (being containers made from materials including glass, aluminium and PET, and used for CSD, water, juices and isotonics).
- 11.2 In both cases the geographical extent of the relevant market is New Zealand wide.

#### VIP

- 11.3 VIP and ACI are both involved in the market in which large plastic pails (over 10 litres) are manufactured and wholesaled. VIP considers that this market also includes metal pails, which are substitutes for plastic pails in respect of some applications (see discussion in paragraph 13.3). In any event, VIP's participation is marginal and involvement is very limited (see further discussion in section 42).
- 11.4 While VIP manufactures some closures for its industrial high density polyethylene ("HDPE") bottles and cubes, these are not the same type of closures that ACI makes. ACI manufactures standard and tamper-evident closures for wide mouth jars (as well as distributing PET closures imported from its Australian arm) see paragraph 9.22(c)). ACI's closures have different characteristics to VIP's closures and each have specific qualities for individual applications. As a result, neither VIP nor ACI consider themselves to be in the same market in relation to closures.
- 11.5 There are no other markets in which VIP and ACI compete.

### VisyPak

11.6 For the reasons given below and in section 13, VIP considers that the relevant market is the market for the wholesale and manufacture of non-alcoholic beverage containers,

being containers made from materials including glass, aluminium and PET, and used for CSD, water, juices and isotonics within New Zealand.

11.7 VisyPak and ACI are both involved in manufacture of plastic products. VisyPak is not however involved in the manufacture of non-beverage PET containers, or any of the other plastic products manufactured by ACI as described in paragraph 9.22. Therefore, the only aggregation in business activity relates to the manufacture of PET bottles.

### Standard, warm-fill and hot-fill

- 11.8 As discussed below, there are three types of PET bottles that can be produced: standard ("**ambient-fill**") PET bottles, bottles that can be filled at temperatures between ambient and 74° Celsius ("**warm-fill**") and bottles that can be filled at temperatures above 84° Celsius ("**hot-fill**"). VisyPak currently only manufactures ambient-fill bottles. There is no aggregation in relation to the warm-fill or hot-fill segments of the market.
- 11.9 Certain juices and drinks (such as Rio juices and Mizone) are warm-filled. Special technology is required to make bottles capable of withstanding this warm-fill to prevent the bottle collapsing. Machines used to produce standard PET containers can however be modified to produce bottles capable of being warm-filled. The modification entails changing the tooling to a set with a 38mm diameter with a different thread. This conversion initially takes approximately two weeks, and the changeover time (from ambient PET to warm-fill and vice versa) for each subsequent swap is approximately eight hours. The initial conversion costs approximately \$400,000 (including conversion of the blow moulding equipment, and new moulds for the injection moulding equipment). Once the alternative mould has been purchased however, there are no additional costs (aside from the down-time in production) for switching between normal PET bottle production and warm-fill PET bottle production.
- 11.10 Similarly, isotonics (which include sports drinks such as Powerade and Gatorade) must be hot-filled. Special technology (hot-fill technology) is required to make PET bottles capable of withstanding this heat. This can be achieved in two ways. The manufacturer can either utilise specific hot-fill equipment or alternatively, can use warm-fill technology if a different (and more expensive) specification of PET resin is used. Again, however, a machine capable of producing ambient PET bottles can be modified so as to be capable of making bottles capable of being hot-filled. The modifications are similar to those required to convert a machine to warm-fill, taking about the same time, both for the initial conversion and each subsequent change over. A converted hot-fill machine is however generally less efficient than a purpose built hot-fill machine. VIP believes that currently only ACI, Alto and Amcor have hot-fill capability.
- 11.11 Given the relative ease of conversion between ambient-fill production technology and warm-fill or hot-fill production technology, VIP considers that, for the purposes of this application, warm-fill and hot-fill production can be treated as segments of a market for beverage containers.
- 11.12 PET beverage bottles are used almost exclusively for containing CSD, water, juice and isotonics. For the following reasons there is very limited, or no, use of PET bottles for beer or milk (or any other liquid food).
- 11.13 Beer has traditionally not been packaged in PET due to technological barriers. Although this is now possible (through the use of multi-layer pre-forms, heavyweight bottles, or coated bottles), consumer acceptance remains low. To date, production has been limited to promotions and for event venues where glass is not permitted at the location. Milk (which is considered to be a liquid food rather than a beverage) is not packaged in PET because HDPE (which can contain milk but not CSD due to carbonation retention qualities, see paragraph 13.3) is cheaper than PET, and PET bottles are unable to be

manufactured with a moulded handle (current consumer preference is for milk bottles which incorporate a handle).

### Non-alcoholic beverage containers

- 11.14 VIP considers however that the relevant market is not restricted to PET beverage bottles. VIP considers that the relevant market includes all the products that, as a matter of fact and commercial common sense, are substitutable for PET bottles.
- 11.15 The table below identifies the different packaging mediums that are available in relation to, and substitutable for, different beverages that are contained in PET.

Product	Packaging Medium
CSD	PET
	Aluminium cans
	Glass bottles
Water	PET
	Glass bottles
	HDPE <sup>1</sup>
Juices	Warm-fill PET
	Aluminium cans
	Glass bottles
	LPB cartons
	HDPE
Isotonics	Hot-fill PET

**Source**: Data supplied by VisyPak (management estimates)

- 11.16 VIP submits that the product and functional level of the relevant market is therefore the market for the manufacture and wholesale of all beverage containers being containers made from materials including glass, aluminium and PET, and used for CSD, water, juices and isotonics (**"non-alcoholic beverage containers"**). Beer and milk are excluded from the market because PET bottles are not (aside from negligible usage in relation to beer), used to contain either product, for the reasons outlined in paragraph 11.13 above.
- 11.17 This market definition accords with the *Brambles* decision<sup>2</sup> where the Court focused on defining the market in terms of other products that were substitutable as a matter of commercial common sense.
- 11.18 VIP considers that the geographic extent of this market is New Zealand wide. ACI has manufacturing plants in Auckland and Christchurch, and operates warehousing and distribution centres in Christchurch, Wellington and Kaiapoi. VisyPak's New Zealand plants are located in Mt Wellington in Auckland, and Woolston in Christchurch.
- 11.19 VIP, VisyPak and ACI are not involved at the retail level of this market.

<sup>&</sup>lt;sup>1</sup> Customer preference is for HDPE bottles when purchasing water only in quantities over five litres. This does not relate to functional characteristics.

<sup>&</sup>lt;sup>2</sup> Brambles New Zealand v Commerce Commission (HC, 24/8/03, O'Reagan J and K M Vautier, CIV 2003-404-000003).

### DIFFERENTIATED PRODUCTS MARKET

- 12. Please indicate whether the products in each market identified in question 11 are standardised (buyers make their purchases largely on the basis of price) or differentiated (buyers make their purchases largely on the basis of product characteristics as well as price).
- 12.1 The products in each of the markets identified above are differentiated.

### 13. For differentiated products markets:

- Please indicate the principal characteristics of products that cause them to be differentiated one from another.
- To what extent does product differentiation lead firms to tailor and market their products to particular buyer groups or market niches?
- Of the various products in the market, which are close substitutes for the products of the proposed combined entity? which are more distant substitutes?
- Given the level of product differentiation, to what extent do you consider that the merged entity would be constrained in its actions by the presence of other suppliers in the market(s) affected?
- The Commission would be assisted in its analysis of the effects of the proposed transaction in a differentiated product market by evidence on product substitutability derived from marketing or consumer surveys, comparative product analyses and evidence of the effect of relative price changes on the demand for different products.
- 13.1 In this section, VIP discusses the characteristics of plastic pails, PET bottles, aluminium cans and glass bottles, being the products within the two relevant markets.

### Pails

- 13.2 Large pails are used for paints, chemicals, building products, food and ink. Their characteristics include being leak-proof, airtight, drop-resistant, resistant to environmental stress cracking, having a click-locking action and having lids which interlock with pail bottoms so that they can be stacked without risk of slipping and tipping.
- 13.3 From a demand-side perspective, metal cans are substitutable for pails in relation to some products, such as paint and fat. From a supply-side perspective, any injection moulding equipment is capable of making pails. This is further discussed in section 42.

### Non-alcoholic beverage containers

13.4 As discussed in section 11, VIP considers the functional and product level of the market to be the manufacture and wholesaling of non-alcoholic beverage containers. VIP considers that there is considerable demand side substitutability between PET, glass and cans. There is demand side substitutability with LPB cartons and HDPE in relation to juice, but limited demand side substitutability in relation to LPB cartons and HDPE for CSD, water and isotonics.

- 13.5 The demand for different beverage containers by fillers is a reflection of the demand for different beverage containers by end consumers. This is less a reflection of the price of each container and more a reflection of:
  - (a) **marketing**: VIP considers that end consumers' tastes and preferences can be swayed by marketing and placement of the particular product.<sup>3</sup> Further, VIP considers that if the merged entity was to raise prices, the fillers would be able to influence end consumers' demand through marketing and therefore effect a switch from PET bottles to glass bottles or aluminium cans.<sup>4</sup> There appears to be a large degree of consumer acceptance as to the same beverage being packaged in different containers. Coca-Cola, for example, is packaged in PET, glass bottles and cans, while "V" and Red Bull is packaged in glass bottles and slimline cans; and
  - (b) functional characteristics: The functional characteristics of PET, glass and cans means there is considerable demand side substitutability between them. There is less demand side substitutability with LPB cartons and HDPE, as their lack of carbonation retention makes them unsuitable for CSD (although they are suitable for juice and water). However, HDPE has a significant level of substitutability in relation to juice as HDPE bottles can incorporate a handle, where PET bottles cannot. This is a significant driver in the packaging choice for juice fillers. The different functional characteristics of the alternative containers, are set out below:

	PET bottle	Aluminium can	Glass bottle	Cardboard carton	HDPE
Carbonation retention	$\checkmark$	$\checkmark$	$\checkmark$		
Re-sealable	$\checkmark$		Depends on lid	Depends on lid	$\checkmark$
Transparency	$\checkmark$		$\checkmark$		Translucent
Strength	$\checkmark$	$\checkmark$			
Light weight	$\checkmark$	$\checkmark$		$\checkmark$	
Barrier to moisture	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Transportability/storage		$\checkmark$		$\checkmark$	$\checkmark$

Source: Information supplied by VisyPak (management estimates)

- 13.6 Switching between different containers has occurred in the past and is expected to occur in the future. This is a result of innovations and changes in customer preferences, such as:
  - (a) strong growth during the last two years for aluminium cans due largely to the promotion of multi-pack cans;
  - (b) new slimline cans used to package energy drinks such as "V" and Red Bull, and the use of glass bottles (particularly at the higher end of the market, or for "niche" products); and
  - (c) Amcor's manufacturing of a range of shaped cans, aluminium bottles and "Ezi Drink" cans (although these are not yet available in New Zealand).<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> Based on information supplied by VisyPak management

<sup>&</sup>lt;sup>4</sup> Based on information supplied by VisyPak management

<sup>&</sup>lt;sup>5</sup> http://www.amcor.com/products/fibre/metal\_default.htm

- 13.7 Furthermore, product differentiation is not limited to different types of beverage containers. Even within the PET bottle segment of the market, significant differentiation exists. Although smaller customers may use generic moulds, companies such as CCA and Frucor place significant emphasis on differentiating their products from that of their competitors. One of the most noticeable ways of doing this is by using a unique PET bottle shape.
- 13.8 In addition, there has also been significant innovation within the PET bottle segment due to technological advances. The expansion into and growth of hot-fill and warm-fill products (such as isotonics) are evidence of this. Most of Frucor's growth, for example, can be attributed to the creation of new markets through hot-fill and warm-fill products, rather than sales at the expense of existing categories. This innovation is not only in the beverage product itself but also in the shape of PET bottles. Examples include the new Powerade Matrix bottle (which is manufactured but not sold in New Zealand) and Sanitarium Water Plus bottle.
- 13.9 VIP acknowledges that the Commission finds the *SNIPP* test useful in market definition. For that reason, comparative prices for the different substitutes in the market are provided below. In relation to these prices however VIP notes that:
  - (a) The prices set out below relate to single serve sizes (aside from the 2.25 litre PET bottle). VIP considers that customers are unlikely to distinguish between a 600ml PET bottle, a 390ml PET bottle, a 355ml can, or a 330ml glass bottle.
  - (b) substitutability is not limited to individual serve sizes. Although cans are typically produced in single serve sizes (ie 355ml vis-à-vis 1.5 litre and large bottles for PET), cans are also packaged and sold (particularly through the grocery channel) in multi-packs (ie 6, 12, 18, 24 and even 30 packs). This constitutes a significant alternative packaging option to the larger PET beverage containers within the CSD segment. Sales of multi-packs have grown in recent years;
  - (c) as these products are significantly differentiated the *SNIPP* test may not be applied with absolute confidence;
  - (d) this market is a tender market so neither Cournot or Bertrand modelling is relevant.

Accordingly the Commission should be alive to other evidence which can assist in identifying the appropriate market in accordance with commercial common sense.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> *Brambles*, see above at note 2, at para 81.

### 13.10 The relative prices for each form of packaging (based on individual size serves) are as follows.

Product	\$ per 1,000
PET bottles - 390ml and 600ml	1
PET bottles - 2.25 litre	[ ]
Glass bottles	See Appendix D
Glass bottles (imported) - 330ml	[ ]
Aluminium cans - 355ml	[ ]
LPB cartons - 250ml	[ ]

**Source**: Data supplied by VisyPak (management estimates)

- 13.11 In addition to the prices above, VIP notes that PET bottles are less space efficient than cans when packed so distribution costs per container are higher.
- 13.12 As noted, VIP considers that the relevant market is the manufacture and wholesale of non-alcoholic beverage containers. VIP provides market share and constraints information in relation to this market in Part III below.

### VERTICAL INTEGRATION

- 14. Will the proposal result in vertical integration between firms involved at different functional levels?
  - Are the "acquirer" (or any interconnected or associated company as identified in section 5) and:
    - the business to which the assets relate; or
    - the "target company" (or any interconnected or associated company as identified in section 5)

engaged at different functional levels of the same product market(s)?

- Please identify for each market:
  - product(s), functional level(s), geographic area(s and where relevant) timeframes;
  - the specific parties involved;
  - the relationship of those persons to the "acquirer" or "the target company" as the case may be.
- If so, in all subsequent questions about markets affected by the proposal, please give details of both (or all) the downstream/upstream markets concerned; and details of existing vertical links between the participants (and/or interconnected or associated companies) in each of these markets eg supply agreements, long-term supply contracts.
- 14.1 No vertical integration will result from this acquisition. VIP notes that members of the Pratt Group supply ACI with corrugated cardboard packaging used for packaging of PET bottles.

- 15. In respect of each market identified in question 11 and/or 14, identify briefly:
  all proposed acquisitions of assets of a business or shares involving either participant (or any interconnected body corporate thereof) notified to the Commission in the last 3 years and, in each case:
  the specific parties involved;
  - the outcome of the notification (e.g. cleared, authorised, declined, withdrawn);
  - whether the proposed acquisition has occurred.
  - any other acquisition of assets of a business or shares which either participant (or any interconnected body corporate) has undertaken in the last 3 years.
  - 15.1 Neither of the participants (nor any of their interconnected or associated body corporates) have made any application to the Commission over the last three years.
- 15.2 In February 2001 the Pratt Group acquired SouthCorp Packaging. In July 2002 VisyPak acquired the PET manufacturing assets of CCA. In July 2002, a consortium which included Salvage acquired VIPH from the Pratt Group. In 2003 VIP acquired Duplast Industries Limited and Plastics Industries (NZ) Limited. No application was made to the Commission for any of these acquisitions.

### PART III: CONSTRAINTS ON MARKET POWER BY EXISTING COMPETITION

The answers to the questions in this Part III in relation to the market for the manufacture of large pails can be found in section 42.

### **EXISTING COMPETITORS**

- 16. In the market or markets, who are the suppliers of competing products including imports?
  - Please identify their owners (including ultimate owner/s)
  - What are their estimated shares of productive capacity and of the market?
    give the total size of the domestic market;
    - identify at least the four leading suppliers;
    - include participants to the proposal;
    - identify imports clearly (including the country of origin and the importers);
    - identify source(s) of estimates; and
    - note that competing goods may not be confined to identical or branded goods.
  - Identify the source of the date provided, and the likely degree of accuracy.
  - Where available, provide data for any or each of the last five years.
- 16.1 The tables below set out the market share data in terms of current sales for the market, being all non-alcoholic beverage containers.

Rank	Manufacturer	Owner of Manufacturer	PE	т	Cans		Glass		Tota	al	Percen share the ma	of
1	VisyPak (including VisyPak Can)	VisyPak Operations Pty Ltd	[	]		[]		0.0	[	]	I	]
2	ACI	ACI International Pty Ltd	I	]		0.0		0.0	[	]	]	]
	Combined Entity (VisyPak /ACI)		[	]	[	]		0.0	[	]	[	]
3	Amcor (including Amcor Can)	Amcor Investments Pty Ltd	[	]	[	]		0.0	[	]	[	]
4	Alto	Privately owned	[	]		0.0		0.0	[	]	[	]
5	ACI Glass	ACI International Pty Ltd		0.0		0.0	]	]	[	]	]	]
6	TSL	Privately owned	[	]		0.0		0.0	[	]	]	]
7	Link Plas	Privately owned	[	]		0.0		0.0	[	]	]	]
8	Can imports			0.0	[]			0.0	[	]		[]
9	Glass imports			0.0		0	]	]	[	]	]	]

### Market share by annual sales (millions of units)

Rank	Manufacturer	Owner of Manufacturer	PET		PET Cans		Glass		Total		Percentage share of the market
	Total		]	]	[	]	[	]	[	]	100%

**Source**: Data supplied by VisyPak (management estimates)

- 16.2 The above data has been provided to VIP by VisyPak and is based on VisyPak's best available estimates. VIP understands that Vertex manufactures PET bottles, but it cannot reliably estimate this volume.<sup>7</sup> A small percentage of PET products are imported however VIP has been unable to confirm exact numbers.
- 16.3 As discussed in paragraph 13.9(b) VIP considers that there has been some increase in the usage of aluminium cans (particularly in the multi-packs).<sup>8</sup>
- 16.4 VIP has not been able to obtain specific data on the last five years because it is not involved in the beverage PET and beverage can industries, and because VisyPak is a recent entrant into those industries (following from the acquisition of the Southcorp Packaging business in February 2001).
- 16.5 ACI estimates that the growth in PET CSD containers will be around [ ] per annum, with growth coming from new drinks such as "V" and Mizone. Housebrands are also taking market share from more traditional brands due to their price points. ACI also expects significant growth in the hot-fill and warm-fill segments, and annual growth in the water segment of around []%.<sup>9</sup>
- 16.6 **[**

]

- 16.7 VIP does not consider that the market shares above accurately reflect the level of competition in the market, nor the market power likely to be held by the merged entity. This is because:
  - (a) VIP considers that Alto and Amcor tend to be more easily able to innovate than VisyPak.

]. Further, VisyPak has [ ] injection moulding machines and [ ] blow moulding machines so it has less flexibility to change the moulds on a single machine, compared to Amcor and Alto, whom VIP estimates have approximately ten and thirteen machines respectively<sup>10</sup>; and

(b) there is spare capacity in the market. VIP has been unable to obtain reliable estimates as to capacity shares in the industry. It considers however that VisyPak's PET competitors, in particular Alto and Amcor, have significant excess capacity. As discussed in paragraph 18.1, VIP estimates that Amcor's spare capacity is likely to be in excess of [ ], and that []% of Alto's capacity is unutilised (equating to [ ]). Likewise, VIP considers that there is excess capacity within the aluminium can

<sup>&</sup>lt;sup>7</sup> Based on information supplied by VisyPak management

<sup>&</sup>lt;sup>8</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>9</sup> [ACI Information Memorandum relating to plastic packaging business, 2003, section 4.6.3.]

<sup>&</sup>lt;sup>10</sup>Based on information supplied by VisyPak management.

segment, as described in paragraph 18.2.<sup>11</sup> VIP has not included this data in the tables above because they are less robust than the sales data provided. VIP considers however that it is appropriate for the Commission to take this factor into account when examining the participants' relative market shares.

### **OTHER CONSIDERATIONS**

WITH RESPECT TO QUESTION 16 ABOVE:

- Please identify any firms that are not currently producing the product in the market, but could enter the market quickly (using essentially their existing productive capacity) in response to an attempt by suppliers to raise prices or reduce output or quality ('near entrants').
- Estimate the productive capacity that such near entrants potentially could bring to the market.
- Please indicate the extent to which imports provide a constraint on domestic suppliers. What costs are incurred by importers that are not incurred by domestic suppliers? How sensitive is the domestic price of imports to changes in the New Zealand dollar exchange rate?
- To what extent is the product exported?
- Please indicate whether the 'target company' could be described as a vigorous and effective competitor, taking into account its pricing behaviour, its record of innovation, its growth rate relative to the market, and its history of independent behaviour.

Firms not currently supplying the market but who could enter quickly and provide extra potential capacity

16.8 The most likely entry from near entrants is in the PET segment of the market. Firms currently manufacturing PET food containers are able to divert production to PET beverage. This is discussed in paragraph 18.4.

#### Extent to which imports provide a constraint

- 16.9 Approximately 8% of the non-alcoholic beverage containers market comprises containers imported in their final form. Predominantly, this takes the form of glass bottles imported from Saudi Arabia via the Sutton Group.<sup>12</sup>
- 16.10 Individual serve glass bottles can be imported at a competitive price (see paragraph 13.10).
- 16.11 VIP estimates that approximately 5% of cans are imported.<sup>13</sup>
- 16.12 Whilst the import rate of PET bottles is relatively low, VIP considers that there is a global trend towards establishing off-shore manufacturing and filling plants. For instance, in 2003, over 50% of the packaging machines manufactured by Tetra Pak (the major supplier of PET blow moulding equipment) were sold to manufacturing plants in China. Local customers may outsource production of filled and unfilled bottles to the Asian region over the short to medium term. Certain other plastic products, such as cosmetic jars, are currently being imported filled and unfilled.

<sup>&</sup>lt;sup>11</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>12</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>13</sup> Based on information supplied by VisyPak management.

- 16.13 It is also easy to import pre-forms for conversion into PET bottles. As discussed in section 27, a potential entrant could import pre-forms, purchase blow-moulding equipment and produce PET bottles using a blow-moulding machine. This sort of machine would cost approximately \$500,000 new (although a second hand machine could be obtained for significantly less). Imports, when combined with the possibility of new entry, do therefore, provide a significant constraint.
- 16.14 **[**

Multi-layer pre-forms are required for specific food applications and for PET beer bottles and are not used for CSD, water, juice or isotonic PET bottles.

### Costs incurred by importers that are not incurred by domestic suppliers

16.15 There are no tariffs on imports of PET bottles, aluminium cans or glass bottles from Australia. There may be tariffs on imports of goods originating outside Australia, however VIP, VisyPak and ACI have no direct knowledge of this.

### Extent to which product is exported

- 16.16 There is some exporting of unfilled PET beverage containers, particularly in relation to isotonics. In the past there has also been sporadic exporting of CSD, water and juice beverage containers to, for example, Fiji. This has, however, been at insignificant volumes.
- 16.17 Mizone, which is manufactured by Amcor in New Zealand, is exported to Australia in filled form. CCA also exports filled water products to Australia and Sanitarium exports Water Plus to Australia.
- 16.18 A significant amount of aluminium cans are exported from New Zealand. Almost all of Australia's slim line cans, for example, are filled in New Zealand.

### Vigorous and effective competitor

16.19 VIP does not consider that ACI could be considered a vigorous and effective competitor. ACI's behaviour in the market does not display any of the symptoms of such a competitor, such as a history of aggressive independent pricing behaviour, a record of superior innovative behaviour or low costs, a growth rate exceeding that of the market, or a history of independent behaviour generally.

### CONDITIONS OF EXPANSION

- 17. The following categories cover different types of market conditions that may affect the ability of firms to expand:
  - Frontier entry conditions. For example, tariffs, quarantine requirements, international freight cost.
  - Legislative/regulatory conditions. For example, meat licensing, Resource Management Act requirements, health and safety standards.
  - Industrial/business. For example, access to raw materials, critical inputs; economies of scale; access to technical knowledge requirements; capital requirements (and capital market's perception of the risk and return); sunk costs i.e. irrecoverable or exit costs (e.g. because of plant specificity);

influence of branding; technical specifications.

• Other. For example, responses to expansion by major firms; lack of additional productive capacity; additional productive capacity has a relatively high cost.

Which, if any, of the entry conditions identified above do you consider could be likely to act as a "barrier" to expansion by existing competitors, where they have the incentive to do so in response to a sustained effort by the combined entity to raise price, or to lower service or product quality?

Please provide evidence, where applicable, of expansion by existing competition during the past five years.

- 17.1 VIP does not believe any of the entry conditions identified in the question would be likely to act as a barrier to expansion by existing competitors. There are no frontier entry conditions, no legislative/regulatory conditions and no significant industry/business conditions.
- 17.2 A market participant will expand its operations if it sees an opportunity to gain a new customer. The market is very competitive in this regard, as is evidenced by the existing spare capacity in the market. Competition for customers operates as follows.
- 17.3 Customers requiring beverage packaging will generally issue a tender for business or request pricing from a number of suppliers. A large number of PET customers in New Zealand are uncontracted. Where contracts exist, they tend to be for a relatively short term of between one and three years, [
  J. See also Appendix D. Customers are likely to let tenders and enter

]. See also Appendix D. Customers are likely to let tenders and enter separate contracts for containers in each medium: PET, cans and glass (and potentially HDPE), depending on the application and their marketing strategy. Further, customers (such as CCA) often sell their products to the end consumer in more than one medium. For example, CCA sells CSD in PET, cans and glass.

- 17.4 There are few barriers to customers switching between PET suppliers. In most cases, the customer either would own the mould and the intellectual property in it (ie the design of the bottle) or would use a generic mould owned by the manufacturer. If the mould is not owned by the customer, the only cost associated with switching from one supplier to another is the investment by the customer or the supplier in new moulds.
- 17.5 Other conditions of expansion are similar to conditions of entry and are discussed in section 27.
- 18. Please name any business which already supply the market including overseas firms which you consider could increase supplies of the product concerned in the geographic market identified by:
  - diverting production;
  - increasing utilisation of existing capacity;
  - expansion of existing capacity.
- 18.1 Increased supply to the market could come from excess capacity, and in relation to PET, from conversion from warm-fill or hot-fill manufacture, conversion from food PET manufacture, or expansion by self-manufacturers. Each of these sources is discussed in turn below.

- **Excess capacity**: Within the PET segment of the market, existing participants such as 18.2 Amcor, Alto and TSL, as well as ACI and VisyPak, have spare capacity.<sup>14</sup> VIP understands that Amcor has significant spare capacity following its recent acquisition of a new PET machine, capable of manufacturing up to [ ] per annum (it is currently manufacturing approximately [ ] per annum). VIP understands that Alto recently created significant capacity and that up to []%, or approximately 1. of Alto's capacity is currently unutilised. VIP understands that I ]. Based on these figures, VisyPak has spare capacity to produce [ there is sufficient spare capacity for each of the customers currently with ACI to switch to an alternative supplier, should the merged entity raise its prices. In addition, there is excess capacity within the aluminium can segment. VIP understands that VisyPak has 1% spare capacity in its can manufacturing business and estimates that Amcor Г ], unutilised capacity.<sup>15</sup> has considerable,
- 18.3 **Conversion from warm-fill or hot-fill**: VIP believes that Alto, Amcor and Link Plas currently manufacture PET suitable for warm-fill and hot-fill which can be converted to ambient-filled PET if there is sufficient incentive (see paragraph 11.9). VIP notes that there is no aggregation between ACI and VisyPak in relation to warm-fill or hot-fill as VisyPak has neither technology.
- 18.4 Conversion to/by PET food container manufacturers: The process for producing non-beverage PET containers (for example, peanut butter jars), is similar to that used to produce PET bottles - that is, a pre-form is produced which is then blow-moulded. Manufacturers of non-beverage PET products could modify their machines to produce PET beverage containers. VIP believes that Amcor and Alto are the most likely nonbeverage PET producers to switch production from non-beverage to beverage PET. This is because they already produce PET bottles, suggesting that the risk of alternative utilisation of production capacity is, for them, lower than the firms that are currently not producing any PET bottles. A single-stage machine that is currently being used to produce non-beverage PET containers can be converted to use for PET bottles at an estimated cost of approximately \$150,000, inclusive of moulds and tooling. This would take approximately one to two weeks once the moulds are supplied by a customer or procured. Manufacturers are also able to spread their risk by converting one machine at a time, they do not need to switch their entire production facilities. Furthermore, once the modification has been made, a supplier may swap back and forward between nonbeverage PET containers and PET bottles with relative ease (in as little as four hours), as it is only a set of tooling that requires changing. VIP considers it likely that ACI, Amcor and Alto are already doing this to some extent.<sup>16</sup>
- 18.5 Expansion by self-manufacturers: Bevpac is currently manufacturing some of its PET bottles itself through a related entity TSL Plastics Limited. It supplies housebrand CSD to supermarkets. It could increase its PET manufacturing capacity to manufacture for other fillers or could win more filling contracts itself and manufacture more PET as a result. In addition, CCA, which currently has [ ] contract with Visy in respect of PET bottles (see paragraph 16.6), [

].

18.6 Each of these sources of increased supply would considerably constrain the merged entity from raising prices.

<sup>&</sup>lt;sup>14</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>15</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>16</sup> Based on information supplied by VisyPak management.

### 19. Of the conditions of expansion listed above which do you consider would influence the business decision to increase supply?

19.1 Manufacturers with excess capacity are likely to be the first to supply a new or switching customer.

### 20. How long would you expect it to take for supply to increase in each case?

- 20.1 Supply is most likely to increase in the PET segment of the market. In this segment, current competitors with spare capacity could increase supply immediately. Conversion of non-beverage PET machinery to machinery with PET bottling capability takes approximately four hours and conversion from a machine that produces bottles capable of being warm-filled or hot-filled takes approximately eight hours (once the initial conversion has been made, see paragraphs 11.9, 11.10, and 18.4). Expansion in the form of the acquisition of new or second hand machinery would take approximately three to six months.
- 20.2 Given that a low proportion of PET customers are under contract, it is not necessary for a supplier to secure a new contract before increasing capacity.

### 21. In your opinion, to what extent would the possible competitive response of existing suppliers constrain the merged entity?

- 21.1 The merged entity would be constrained to a significant extent by the competitive response of existing suppliers. This is most likely to occur through an expansion of supply (utilising existing unused capacity as discussed in section 18) in either the PET bottle or aluminium can segments of the market.
- 21.2 The market is very competitive, as discussed in paragraphs 13.6 to 13.8. VIP believes that Amcor and Alto for example have an excellent track record and own almost all of the hot-fill and warm-fill technology. Amcor manufactures []%, and Alto []% of the warm-fill PET bottles in New Zealand. Amcor manufacturers all of the hot-fill PET bottles in New Zealand.<sup>17</sup>
- 21.3 VIP considers that innovation is evidence of a competitive market, in which the other participants will actively compete, thereby placing a constraint on the merged entity.

# 22. Looked at overall, and bearing in mind the increase in market concentration that would be brought about by the acquisition, to what extent do you consider that the merged entity would be constrained in its actions by the conduct of existing competitors in the markets affected?

22.1 As discussed in the proceeding sections, there is significant spare capacity in both the PET bottle and aluminium can segments of the market and there is further potential for expansion. This provides a significant constraint on any ability the merged entity may have to raise prices. VIP does not consider that the merged entity will have any greater ability to raise prices than VisyPak or ACI currently have. [

]. The Murdoch contract was for [ ], and

<sup>&</sup>lt;sup>17</sup> Based on information supplied by VisyPak management.

was won by the incumbent, ACI. The DB contract was for [ ] and was also won by the incumbent, in this case Amcor. Frucor put out two tenders - one for [], which was won by the incumbent, ACI, and another for [], which was won from Amcor by ACI.<sup>18</sup>

### CO-ORDINATED MARKET POWER

### 23. Identify the various characteristics of the market that, post-acquisition, you consider would either facilitate or impede co-ordination effects.

- 23.1 There are a number of factors which make collusion in the post-acquisition market difficult:
  - (a) **Size disparity**: VIP considers that the disparity in the sizes of the participants in the relevant market makes collusion unlikely.
  - (b) **Differentiated product**: The beverage container market contains a large amount of product differentiation. Consumer choice is largely driven by marketing (see paragraph 13.5(a) above). This makes it harder for market participants to agree on price, and causes problems due to changes in the product over time.
  - (c) Dynamic production technology: New technology has lead to a number of new options for packaging. As discussed in paragraphs 13.6 and 13.8, examples include slimline cans (predominantly used for energy drinks) and hotfill technology for isotonics. These dynamic changes in production make it more difficult to maintain a uniform price.
  - (d) **Ease of entry**: As discussed in section 27, barriers to entry are reasonably low. Any co-ordinated raising of prices is likely to be countered by profit seeking from new competitors.
  - (e) **Prevalence of fringe competitors**: The market is differentiated and there are a number of smaller competitors (see section 16).
  - (f) **Countervailing power of purchasers**: See section 41.
  - (g) **Excess capacity**: The excess capacity in the market will give participants a strong incentive to deviate from a collusive agreement.
- 23.2 In addition, VIP notes that VisyPak and Amcor are vigorous competitors, both domestically and internationally.

## 24. Identify the various characteristics of the market that, post-acquisition, you consider would facilitate or impede the monitoring and enforcement of coordinated behaviour by market participants.

24.1 The factors that would impede the monitoring and enforcement of coordinated behaviour by market participants (thereby making them less likely to collude on price) are:

<sup>&</sup>lt;sup>18</sup> Based on information supplied by VisyPak management.

- (a) Different cost structures: The participants in the market have different cost structures. The costs of resin (for PET), bauxite (for cans) and silica sand, soda ash and limestone (for glass) bear no relationship to each other. In relation to PET, different cost structures arise out of the different manufacturing arrangements available to participants in the market. For instance, some PET converters manufacture on a toll basis and charge only for the conversion of the PET resin, while other converters purchase the resin themselves. This reduces the opportunity for detection because participants can claim that any reduction in price is a result of change in cost structures rather than cutting profit margins to increase market share.
- (b) **Lack of price transparency**: The prices charged by different competitors are not transparent. This makes it harder to detect changes in price because the price charged to individual customers is not publicly available.

### 25. Indicate whether the markets identified in paragraph 9 above show any evidence of price coordination, price matching or price following by market participants.

25.1 VIP is not aware of any price co-ordination in this market.

### 26. Please state the reasons why, in your opinion, the transaction will not increase the risk of coordinated behaviour in the relevant market(s).

26.1 VIP does not believe there will be any increased risk of co-ordination in the nonalcoholic beverage container market. Any price coordination or collusion is unlikely given the nature of the market (paragraph 23.1), and that the opportunity for detection from any deviation of price is low (paragraph 24.1).

### PART IV: CONDITIONS OF ENTRY

The answers to the questions in this Part IV in relation to the market for the manufacture of large pails can be found in section 42.

27.		The following categories cover different types of market conditions that may affect the ability of new firms to enter the market:						
	•	Frontier entry conditions. For example, tariffs, import licensing, quarantine requirements.						
	•	Legislative/regulatory conditions. For example, meat licensing, Resource Management Act requirements, health and safety standards.						
	•	Industrial/business. For example, access to raw materials, critical inputs; economies of scale; access to technical knowledge requirements; capital requirements (and capital market's perception of the risk and return); sunk costs i.e. irrecoverable or exit costs (e.g. because of plant specificity); influence of branding; technical specifications.						
	•	Other. For example, response to expansion by major firms.						
	Which, if any, of the entry conditions identified above do you consider could be likely to act as a "barrier" to the entry of new competitors, where they have the							

likely to act as a "barrier" to the entry of new competitors, where they have the incentive to do so in response to a sustained effort by the combined entity to raise price or to lower service or product quality?

- 27.1 Barriers to entry for aluminium cans and glass bottle production are high and entry is unlikely in these two segments of the market. The PET beverage container segment of the market has reasonably low barriers to entry, and entry is likely.
- 27.2 In relation to new entrants to the aluminium can manufacturing industry, VIP estimates that an initial capital contribution of \$21 million would be required.<sup>19</sup> Likewise, in relation to new entrants to the glass bottle manufacturing industry, ACI estimates that a new entrant would require \$100 million minimum and two years planning time.
- 27.3 Given that entry is unlikely in the aluminium can or glass bottle segments of the market, sections 27 to 35 of this application are restricted to discussion of conditions of entry in the PET bottle segment of the market.

### Frontier entry and legislative barriers

27.4 Aside from the possibility of import tariffs as discussed in paragraph 16.15, there are no frontier entry conditions nor legislative/regulatory conditions to the PET beverage container industry, the aluminium can industry or the glass bottle industry.

### Industrial/business barriers

- 27.5 PET resin, the raw material in PET container manufacturing, is easily available for importation.
- 27.6 As described in paragraph 9.3 there are different ways to produce PET bottles (or "convert") depending on the scale of entry. In summary, a potential entrant could:

<sup>&</sup>lt;sup>19</sup> Based on information supplied by VisyPak management.

- (a) invest in a two-stage PET manufacturing plant. VIP estimates that investment of this sort would cost at least \$5 million;<sup>20</sup>
- (b) invest in a single stage injection stretch blow moulding machine. VIP estimates that this sort of investment would cost at least \$500,000 (although it could be obtained for significantly less second hand);<sup>21</sup>
- (c) invest in a blow moulding machine and purchase the pre-forms either locally or from overseas. Imported pre-forms are readily available and are currently being used by, for example, VisyPak. The cost of this sort of investment will vary depending on the size of the machine. VIP estimates that this least cost option would cost at least \$100,000.<sup>22</sup>
- 27.7 An injection moulding machine currently being used to produce other plastic products could be converted to produce pre-forms for around \$50,000. The costs of entering the PET bottle industry for a participant who already has an injection moulding machine are therefore considerably less.
- 27.8 The scale of investment will depend on anticipated output. It is estimated that two-stage production becomes efficient when production is in excess of approximately five to ten million units per year.
- 27.9 As noted in paragraph 9.5, investment in two-stage production is by no means essential. Alto, for example, currently uses single-stage production, while Amcor uses both singlestage and two-stage production.
- 27.10 In relation to this, there are two likely types of new entrant:
  - (a) Large scale new entrant: the large scale new entrant, who is likely to be in another part of the plastics industry and have the expertise to move into PET beverage containers or a PET bottle manufacturer not currently operating in New Zealand. This entrant may want the certainty of a contract from a purchaser before investing in production facilities (see section 17.3 for a discussion of customer contracting practices); and
  - (b) Beverage manufacturer: the beverage manufacturer that chooses to vertically integrate into manufacturing beverage containers. While this entrant does not necessarily have the plastics (or glass or can) knowledge, it has a ready customer base. Such a new entrant could enter on either a small or a large scale. For example, Bevpac is self-manufacturing (see paragraph 18.5). CCA has also self-manufactured in the past and could do so in the future (see further discussion in paragraph 18.5). An emerging technology that is likely to encourage entry into this market by beverage manufacturers is called aseptic filled PET. This involves the development of a sterile environment in which ordinary pre-forms are blown and the bottle is filled. Because the bottle is blown and filled at the same time, beverage manufacturers are well-placed to take up this technology.
- 27.11 The investment required is not prohibitive compared to the revenue that can be generated. See Appendix D. Such investment should not, furthermore, be considered a sunk cost for the following reasons:
  - (a) manufacturing assets are readily available for lease. [

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<sup>&</sup>lt;sup>20</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>21</sup> Based on information supplied by VisyPak management.

<sup>&</sup>lt;sup>22</sup> Based on information supplied by VisyPak management.

- (b) just as non-beverage PET machinery can be converted into PET bottle production, a PET bottle machine can be converted to produce other PET products. This suggests that the production assets can be used for another use at a relatively low cost;
- (c) there is a second hand market in which the machinery can be bought (and sold) although prices in this market are low, given the excess capacity in the market; and
- (d) the cost of the machinery is not an "additional or significantly increased cost or other disadvantage that a new entrant must bear".<sup>23</sup>
- 28. Please name any businesses including overseas businesses which do not currently supply the market but which you consider could supply the products/services concerned in the geographic markets identified by:
  - investing in new production facilities to produce the product;
  - overseas companies diverting production;
  - domestic companies expanding, or changing utilisation of existing capacity.
- 28.1 International players not currently manufacturing PET containers in the New Zealand market include Tetra Pak (an international company with 77 market companies around the world and net sales in 2002 of EUR 7.5 billion (see www.tetrapak.com)), Brickwood Holdings Pty Ltd ("**Brickwoods**") (an Australian PET manufacturer) and San Miguel, who have publicly expressed their desire to develop their bottle manufacturing capability in Australasia (see Appendix E).
- 28.2 Tetra Pak has a presence in the New Zealand market as a supplier of packaging systems and LPB carton packaging for milk and juice. It does not, however, currently manufacture PET bottles in New Zealand.
- 28.3 In addition, any of the existing beverage manufacturers would be capable of vertically integrating to manufacture their own containers. Bevpac is currently doing so (see paragraph 18.5) and CCA has done so in the past.

### 29. What conditions of entry do you consider would most influence the business decision to do so in each case?

29.1 If the merged entity was to raise the price of PET beverage containers, or restrict output, it is likely that a large scale new entrant would enter the market, given that they are likely to have the product expertise (see section 27 above). VIP considers that existing capacity, and product knowledge or expertise are the most important factors. Given the low proportion of customers under contract in New Zealand, having a customer contract is not considered to be an important factor.

<sup>31</sup> 

<sup>&</sup>lt;sup>23</sup> *Brambles*, see above at note 2, paragraph 177

### LIKELIHOOD, SUFFICIENCY AND TIMELINESS OF ENTRY

### 30. How long would you expect it to take for entry to occur, and for supply to increase in respect of each of the potential business entrants?

30.1 VIP estimates that both small and large scale entry could occur within three to six months, depending on whether new or secondhand equipment was used.<sup>24</sup> The secondhand market is liquid - such equipment is readily available and would take less time to source than new equipment.

## 31. Given the assessed entry conditions, and the costs that these might impose upon an entrant, is it likely that a potential entrant would consider entry profitable at pre-acquisition prices?

31.1 Yes. Because the barriers to entry are low, there is no reason why a new entrant could not enter the market relatively quickly, and be running at a profit (excluding capital returns) within a short period of time, at a minimum, one year.

### 32. Would the threat of entry be at a level and spread of sales that it is likely to cause market participants to react in a significant manner?

32.1 Yes. Given the lack of barriers to entry, VIP considers that if the merged entity was to raise prices, other firms could enter the market relatively easily, and supply at a more competitive price. The only factor that might prevent a new entrant from entering is the current existence of excess capacity.

### 33. What conditions of entry do you consider would influence the business decision to enter the market by setting up from scratch, i.e. de novo entry?

- 33.1 See paragraph 29.1.
- 33.2 A beverage manufacturer looking to vertically integrate would not need a customer, as it could use its production itself. A vertically integrated manufacturer would therefore only need to acquire industry knowledge and expertise. Such expertise is readily available, either through the engagement of consultants or hiring new employees.

### 34. How long would you expect it to take for de novo entry to occur?

34.1 VIP estimates approximately three to six months.<sup>25</sup>

### 35. In your opinion, to what extent would the possibility of de novo entry constrain the merged entity?

35.1 VIP considers that de novo entry by any PET player not currently in New Zealand, such as, for example, Tetra Pak or Brickwoods, provide an extremely real constraint on the

<sup>&</sup>lt;sup>24</sup> Estimate provided by VisyPak management.

<sup>&</sup>lt;sup>25</sup> Based on information and estimates provided by VisyPak management.

merged entity. Constraint is also provided by the excess capacity in the market (see paragraph 18.2).  $^{\rm 26}$ 

<sup>&</sup>lt;sup>26</sup> Based on information and estimates provided by VisyPak management.

### PART V: OTHER POTENTIAL CONSTRAINTS

The answers to the questions in this Part V in relation to the market for the manufacture of large pails can be found in section 42.

### CONSTRAINTS ON MARKET POWER BY THE CONDUCT OF SUPPLIERS

- 36. Who would be the suppliers of goods or services to the merged entity in each market identified in questions 11 and/or 14?
- 37. Who owns them?

### **Suppliers of Resin**

37.1 In relation to PET, suppliers of resin (and their agents where known) include Shingkong (Hunt Agencies Limited), SK Global, Indorama, Voridian (Polychem Marketing Limited), Leading Synthetics, Mitsui (Mitsui and Co. (Australia) Limited, and Shinpet (Chemiplas New Zealand Limited).

### **Suppliers of Machinery**

37.2 The major suppliers of PET production machinery are:

Production method	Supplier (and their agents where known)					
2-stage blow-moulding	Sidel (Sidel Oceania Pty Ltd (Australia))					
	Kromes					
	Sipa (James Forten International Limited)					
	Sig Beverages					
	There are also a small number of Italian and Asian					
	manufacturers.					
Injection Moulding	Husky					
	Nestal					
	Krauss Maffei (HBM NZ Limited)					
Single stage	ASB (Inmac Industries 1997 Limited)					
enigie etage	Aoki					
	Magic					
Shipa						
	Nissei					

**Source**: Information supplied by VisyPak (management estimates)

37.3 Second-hand moulding equipment is also available both in New Zealand and overseas. Suppliers of new equipment are willing to assist in sourcing such equipment and existing market participants offer old equipment for sale when they upgrade.

## 38. In your opinion, to what extent would the conduct of suppliers of goods or services to the merged entity constrain the merged entity in each affected market?

38.1 The conduct of suppliers of goods are unlikely to provide significant constraint on the merged entity.

### CONSTRAINTS ON MARKET POWER BY THE CONDUCT OF ACQUIRERS

### 39. Who would be the acquirers of goods or services supplied by the merged entity in each market identified in questions 11 and/or 14?

### 40. Who owns them?

Purchaser/Acquirer	Owner	Current supplier
Coca-Cola Amatil (NZ) Limited	Listed	VisyPak* / Alto
Frucor Beverages Limited	Danone	ACI
Bevpac NZ (1996) Limited	Privately owned	ACI/TSL
DB Breweries Limited	Listed	Amcor
Yeoman Industries Limited	Privately owned	Amcor
Murdoch Manufacturing Limited	Foodstuffs (South Island) Limited	ACI
Other		ACI/Alto

Source: Data supplied by VIP<sup>27</sup>

40.1 \*[

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40.2 In addition, there are a number of smaller acquirers of PET products including Wairera (Zentrum Holdings), New Zealand Quality Waters and Sanitarium.

## 41. In your opinion, to what extent would the conduct of acquirers of goods or services to the merged entity constrain the merged entity in each affected market? How would this happen?

- 41.1 The purchasers of beverage containers provide a very large and significant constraint on the conduct of participants in the market.
- 41.2 VisyPak currently has a contract with CCA which [

]

41.3 CCA's market share poses a constraint on the prices participants in the market can charge. [

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41.4 Supermarkets also act as a countervailing power. Murdoch is owned by Foodstuffs (South Island) Limited and Foodstuffs also fills its own bottles in Wellington. Both

<sup>&</sup>lt;sup>27</sup> Based on information supplied by VisyPak management.

Bevpac and DB fill bottles with CSD under housebrands for supermarkets. Although fillers do not normally seek the support of a beverage container manufacturer prior to tendering for a contract, they may ask the incumbent for price support if the supermarket they supply is being aggressively chased by another filler.

41.5 Frucor also has countervailing power as it is Pepsi's bottler in New Zealand. It is currently supplied by ACI [

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- 41.6 While prices charged by manufacturers may vary between customers (largely as a function of scale), those using generic bottles (including the small customers) should be largely protected from price discrimination by the ability of other customers to arbitrage by on-selling generic bottles.
- 41.7 As discussed in paragraphs 17.3 and 17.4, there are no barriers to customers switching between suppliers other than existing contracts.

### 42. Answers to Parts III, IV and V in relation to the market for manufacture of large pails

42.1 There are four manufacturers of plastic pails in New Zealand. VIP has commenced in the last six months manufacturing a ten litre pail. [

1

42.2 VIP understands that the principal market participants and their approximate market shares of sales are:

ACI	[]%	
Viscount Plastics (NZ) Ltd	[]%	
Simaplas Ltd	[]%	
Galantai Plastics Group Ltd	[]%	
Source: [		]

- 42.3 There are approximately [ ] plastic pails sold in New Zealand per year. This means that VIP's share is less than []%.
- 42.4 Pails are also able to be imported, as they nest inside each other. No significant quantities of plastic pails are imported but some metal pails are imported (see paragraph 16.15 in relation to tariffs).
- 42.5 ACI's biggest customer is Resene Paints, the second largest paint manufacturer in New Zealand. ACI's market share has been increasing over the last few years at the expense of their competitors. Viscount Plastics main customers are Dulux Paints and Wattyl Paints.
- 42.6 Pails, lids and handles can be manufactured by any person with injection moulding equipment and a mould. Injection moulding equipment has many different uses, including to manufacture crates. There are approximately 28 injection moulding machines capable of making pails in New Zealand, of which VIP has one and ACI has five. Other companies with significant injection moulding equipment capable of making pails (other than existing pail manufacturers) include Perroplas, Vertex, TCL and Interworld Plastics. There are a greater number of machines capable of manufacturing handles and lids for pails.

- 42.8 A pail mould costs approximately \$85,000 to \$115,000, which means that the manufacturer is likely to want a contract with a customer before it made such an investment. VIP considers that a new entrant would consider entering the market if it had a three year contract with a customer.
- 42.9 Given that VIP's share in this market is miniscule, VIP considers that the merged entity would be constrained by other existing or potential competitors in the same way that each of ACI and VIP are currently constrained.

THIS NOTICE is given by Visy Industrial Plastics (NZ) Limited ("VIP").

VIP hereby confirms that:

- (a) All information specified by the Commission has been supplied;
- (b) All information known to the applicant which is relevant to the consideration of this application has been supplied;
- (c) All information supplied is correct as at the date of this application.

VIP undertakes to advise the Commission immediately of any material change in circumstances to the application.

Dated this 22 March 2004

Signed by **VIP**:

**Brian Cridland** Chief Executive Officer Visy Industrial Packaging Holdings Pty Ltd

I, Brian Cridland, Chief Executive Officer of Visy Industrial Packaging Holdings Pty Ltd, am authorised to make this application on VIP's behalf.

### APPENDIX A Copy of the Agreement between VIP and ACI

### CONFIDENTIAL IN ITS ENTIRETY

Attached as a separate document.

### APPENDIX B Manufacturing Processes<sup>28</sup>

#### Injection moulding

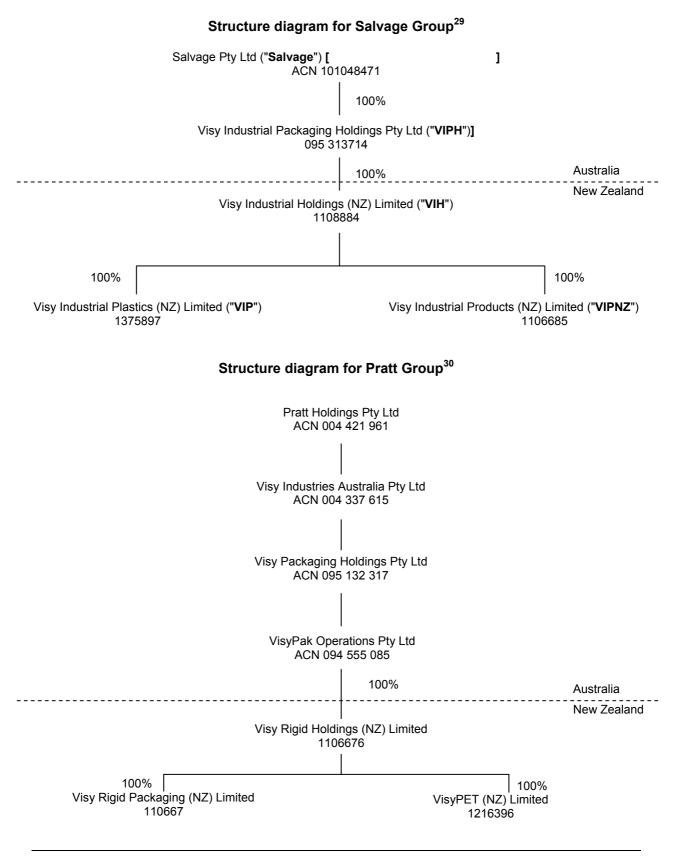
1.1 Injection moulding is the principal method of forming thermoplastic materials. In injection moulding, plastic material is put into a hopper which feeds into a heated injection unit. A reciprocating screw pushes the plastic through this long heating chamber, where the material is softened to a fluid state. At the end of this chamber there is a nozzle which abuts firmly against an opening into a cool, closed mould. The fluid plastic is forced at high pressure through this nozzle into the cold mould. A system of clamps hold the mould halves shut. As soon as the plastic cools to a solid state, the mould opens and the finished plastic is ejected from the press.

#### Blow moulding

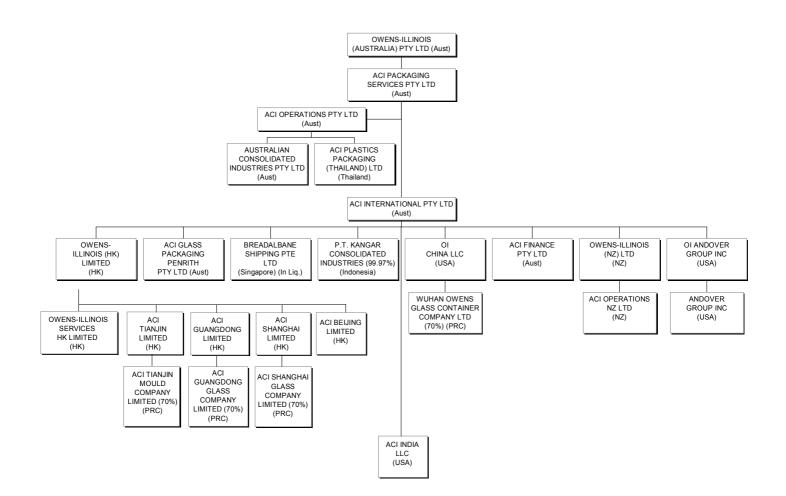
- 1.2 Blow moulding is a method of forming hollow articles out of thermoplastic materials. It involves forming a molten tube of thermoplastic material, then with the use of compressed air, blowing up the tube to conform to the interior of a chilled blow mould. The most common methods of blow moulding are extrusion blow moulding ("EBM"), injection blow moulding ("IBM"), compression moulding and injection-stretch blow moulding ("ISBM").
- 1.3 EBM technology involves the extrusion of a hollow cylinder of molten plastic ("parison") between the two halves of a mould. The mould is closed around the parison and a blast of air in the neck orifice forces ("blows") the plastic out against the walls of the mould, producing a hollow article.
- 1.4 IBM technology involves a three step process whereby molten plastic is injected into an injection mould (injection mounding) to create a pre-form. The pre-form is then transferred in its blow stem (core) to the next blow moulding station where the pre-form is blown into the shape of the water-cooled mould (blow moulding). The finished product is ejected from the blow stem in the final step of the process.
- 1.5 ISBM is primarily used in the manufacture of PET containers but is also being used on a small scale for Polypropylene and Polyethylene containers. The first phase of the process is the manufacture of a pre-form in an injection moulding process similar to IBM above. This pre-form is then reheated, stretched lengthways, and blown into the form of a water cooled cavity (slightly different process to conventional blow moulding due to the "stretching" of pre-forms prior to blowing).

<sup>&</sup>lt;sup>28</sup> From the Society of Plastics Industry <a href="http://www.plasticsindustry.org/industry/process.htm">http://www.plasticsindustry.org/industry/process.htm</a>, viewed 17 February 2004.

### **APPENDIX C**



<sup>29</sup> Relevant entities only.
 <sup>30</sup> Relevant entities only.



<sup>&</sup>lt;sup>31</sup> Relevant entities only.

### APPENDIX D

### **ACI Information**

### Packaging prices (paragraph 13.10)

1. In ACI's opinion, glass bottles and PET bottles are comparable in price, with some exceptions. When a customer orders a very long run of glass containers (eg greater than 25 million units) glass bottles may be cheaper than PET. For shorter run bottles, glass bottles can be more expensive than PET.

### Customer contracts (paragraphs 17.3 and 17.4)

- 2. [
- 3. In relation to barriers to customers switching between suppliers, ACI estimates that customer tenders result in a change of supplier in [ ]% of cases and often result in significant cost reductions for the customer. Incumbent suppliers will often reduce their prices significantly in order to retain business due to the sunk cost associated with their investment in tooling.
- 4. In relation to glass and cans, medium term contracts (one to three years) are quite common.

### Barriers to entry (paragraph 27.11)

5. ACI's revenue from Frucor last year was approximately \$[ ].

#### Countervailing power of fillers (section 41)

6. ACI supplies Frucor with PET bottles. Its contract with Frucor [

ACI considers that Frucor has significant countervailing power.

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**APPENDIX E**