Office of the Minister for Climate Change Issues

Industrial Allocation under the New Zealand Emissions Trading Scheme: Group Two Activities

Proposal

1. This paper seeks agreement to the following:
    a. Providing allocation to further specific eligible industrial activities.
    b. Rates of assistance for these eligible industrial activities.

Executive summary

2. From 1 July 2010 the surrender obligations under the NZ ETS have applied to the stationary energy and industrial processes sectors. As a result, firms now face costs in respect of greenhouse gas emissions. The Climate Change Response Act 2002 (the Act) provides for transitional industrial allocation to lessen the impact of the NZ ETS on the firms most heavily affected by the introduction of a price on carbon. The Act prescribes initial levels of assistance of 90% for highly emissions-intensive activities and 60% for moderately emissions-intensive activities.[1]

3. Cabinet previously approved allocation to certain activities (Group One activities) [CAB Min (10) 23/6 refers]. This paper proposes further activities (Group Two activities) that should be eligible for industrial allocation and rates of assistance for those activities. These proposals follow consultation and a data collection process in respect of each proposed activity.

4. Section 161A of the Act provides for regulations to be made prescribing activities that are eligible for industrial allocation. This paper proposes that the following Group Two activities should be prescribed as eligible industrial activities under the Act. The paper also makes proposals regarding specific matters relating to each activity.

Carbon steel	Glass containers
Cementitious products	Clay bricks and field tiles

5. Group Two activities represent the second tranche of activities for which industrial allocation regulations will be proposed. It is estimated that Group Two activities represent 17% of the number of units that will initially be allocated for eligible industrial activities. A further Cabinet paper will follow in September covering further activities that meet the emissions intensity threshold for eligibility for industrial allocation.

6. Industrial allocation regulations must prescribe an activity description[2] for each eligible industrial activity and the products to be used as the basis for an

[1] An activity is classified as highly emissions-intensive if it generates more than 1,600 tonnes carbon dioxide equivalent (tCO_2-e) per million dollars revenue; and moderately emissions-intensive if it generates between 800 and 1,600 tCO_2-e per million dollars revenue.

[2] A firm must carry out an activity as set out in an activity description in order to be eligible for industrial allocation.

allocation.[3] I propose that the activity descriptions and prescribed products set out in the proposed regulations should be the same in substance as those previously used in notices issued under the Act to collect data on these activities (as set out in Appendix 3). Any significant change to activity descriptions and prescribed products is likely to require further consultation and a further data collection process.

7. In order to qualify for industrial allocation, activities must be moderately or highly emissions-intensive (as defined under section 161C(1)) and satisfy the trade exposure test set out in section 161C(1)(c) of the Act. I am satisfied that the activities for which regulations are proposed satisfy these requirements.

8. The rate at which a firm carrying out an eligible industrial activity will receive units depends on the activity's emissions intensity classification[4] and allocative baseline(s).[5] I propose that the regulations prescribe the emissions intensity classifications and allocative baselines set out in Appendix 1 calculated from data submitted by firms for this purpose. The initial per annum fiscal cost of industrial allocation for Group Two activities is estimated at $14m (for a full year of production).

9. In general, the proposals in this paper represent the technical application of the industrial allocation provisions of the Act. I do not anticipate that there would be any significant stakeholder reaction to these proposals.

Background

Industrial allocation

10. From 1 July 2010 the surrender obligations under the NZ ETS have applied to the stationary energy and industrial processes sectors. As a result, participants in these sectors now face and a price on emissions. In many cases this price will be passed through to consumers through higher energy prices.

11. The NZ ETS provides for industrial allocation to facilitate the smooth transition towards a carbon free economy and to lessen the impact on the firms most heavily affected by the introduction of a price on carbon. These are firms that face a large increase in costs as a result of the scheme (because they are emissions-intensive), but will not be able to pass on those costs through higher prices (because they are trade-exposed). Firms may be unable to pass on costs in light of competing firms that are not subject to a comparable cost on emissions in their home countries.

12. Some of the firms to which industrial allocation applies will have obligations as participants in the NZ ETS. Other firms will not face direct obligations but will face energy price increases (e.g. increased electricity, natural gas and coal

[3] The product(s) for each activity sets out the unit for measuring production volume, upon which number of units allocated in a year is based.

[4] The Act provides that an activity qualifies for an initial 90% level of assistance if it generates more than 1,600 tonnes carbon dioxide equivalent (tCO_2-e) per million dollars revenue; and an initial 60% level of assistance if it generates between 800 and 1,600 tCO_2-e per million dollars revenue.

[5] An allocative baseline is a benchmark rate of emissions per unit of production that is used to calculate the amount of allocation for an activity.

prices). These price increases are expected to arise through participants passing on the costs of obligations under the scheme to consumers.

13. On 28 June 2010, Cabinet approved the making of regulations providing for allocation to Group One activities [Cab Min (10) 23/6 refers]. This paper proposes the making of regulations under section 161A of the Climate Change Response Act 2002, prescribing the Group Two activities that should be eligible for industrial allocation and rates of assistance for those activities.

Content of regulations

14. On 7 December 2009, the major design parameters for industrial allocation were enacted through the Climate Change Response (Moderated Emissions Trading) Amendment Act 2009. The Climate Change Response Act 2002 (the Act) provides that regulations may be made prescribing eligible industrial activities for the purposes of allocation and prescribing, as appropriate, the elements in respect of each activity that qualifies for industrial allocation, including the following:

    a. **Activity description.** A description of the input(s), transformation, and output(s) that constitute a specific activity.

    b. **Prescribed products.** Units for measuring production volume, which determine the number of units a firm receives in a given year.

    c. **Emissions intensity classification.** Classification that determines the level of assistance for which an activity qualifies.

    d. **Allocative baseline(s).** Benchmark rate of emissions per unit of production that is used to calculate the amount of allocation for an activity.

Data collection process

15. In order to determine the proposed emissions intensity classifications and calculate proposed allocative baselines, it was necessary to collect data for each activity under section 161D of the Act. This required the development of activity descriptions and prescribed products for each activity.

16. Section 161E of the Act required certain matters to be considered before setting activity definitions. Section 161F(2) also required consultation on activity descriptions and prescribed products prior to requesting data from firms. On 27 October 2009, Cabinet authorised the publication of a consultation document on the details of industrial allocation [CAB Min (09) 38/7 refers]. The industrial allocation consultation document was released in December 2009.[6]

17. The consultation document proposed activity definitions for the purposes of data collection. Each activity definition included a description of the activity, prescribed products, types of emissions to be included in data submitted and types of emissions to be excluded. Proposed activity definitions were based on those developed in Australia for assistance under the proposed Carbon Pollution Reduction Scheme.

[6] Ministry for the Environment. 2009. *Development of Industrial Allocation Regulations under the New Zealand Emissions Trading Scheme: Consultation Document.* Wellington: Ministry for the Environment.

18. Following release of the December consultation document, a number of further proposed activities were identified by submitters. Additional consultation was entered into in developing these new activity definitions.

19. Following consultation on activities proposed in the December consultation document and on activities subsequently identified, activity definitions for the purposes of data collection were finalised for certain further activities. Calls for data for the following Group Two activities were issued under section 161D of the Act and published in the *New Zealand Gazette* on 26 March, 31 March, 30 April and 12 May 2010:

Carbon steel	Glass containers
Cementitious products	Clay bricks and field tiles

20. Group Two activities represent the second tranche of activities for which industrial allocation regulations will be proposed. It is estimated that Group Two activities represent 17% of the number of units that will initially be allocated for eligible industrial activities.

21. Data has now been received from firms carrying out Group Two activities. The provision of data by firms was based on a self-assessment model. There were no requirements for mandatory third-party audits or verification. However, the Act specifies a series of offences and penalties for providing altered, false, incomplete or misleading information. All data submitted by firms has been subject to a process to assess the risk of errors or inaccuracies associated with data resulting in incorrect emissions intensity classifications or allocative baselines.[7]

22. Data collection has been, or is currently being, undertaken for the following further activities (Group Three activities) to assess whether they meet the emissions intensity threshold to qualify for industrial allocation:

Cucumbers	Capsicums	Tomatoes	Roses
Wood panels	Iron & steel	Whey cheese	Whey powder
Lactalbumin	Lactose	Milk minerals	Protein meal
Whey protein	Gelatine		

23. A slower timeframe has been necessary in respect of Group Three activities. These are all New Zealand-specific activities for which further consultation has been required in defining activities. Furthermore, firms carrying out some activities required a longer period to collect data on emissions and revenue. Accordingly, a further Cabinet paper will follow in September covering these and any further activities that meet the emissions intensity threshold for eligibility. There may also be proposals for any new activities that emerge and meet the eligibility requirements under the Act.

[7] The Ministry for the Environment contracted PricewaterhouseCoopers to check a complete set of data was submitted by each firm and assess the risk of errors or inaccuracies associated with data resulting in incorrect emissions intensity classifications or allocative baselines. In some cases, specific data sets have been audited.

Comment

Activity descriptions and prescribed products

24. Under the Act, firms are entitled to allocation if they carry out an eligible industrial activity. The Act provides that regulations may prescribe eligible industrial activities and other elements relevant to those activities, including as appropriate, a description of the input(s), transformation, and output(s) that constitute a specific activity. Regulations may also prescribe the products to be used as a basis for allocation for a specific activity.

25. Stakeholders did not raise significant issues with activity definitions for the manufacturing of carbon steel from cold ferrous feed or the production of glass containers proposed in the December 2009 consultation document. Accordingly, activity definitions used to collect data for these activities were consistent with those proposed in the consultation document. Stakeholders did, however, raise more significant issues with the activity definition for the production of cementitious products. Appendix 2 sets out issues raised, and amendments made in response to submissions, in respect of cementitious products. It also sets out information regarding the development of a new activity definition for the production of clay bricks and field tiles.

26. I propose that the activity descriptions and prescribed products set out in regulations should be the same in substance as those used to collect data on activities. Any significant change to activity descriptions and prescribed products is likely to require further consultation and a further data collection process. There was full consultation under the Act prior to the activity and product descriptions being included in the calls for data and the information gathered is specific to those descriptions. Furthermore, there has been no feedback following the issuing of the calls for data that would provide grounds for the activity and product descriptions to be changed.

27. In respect of one activity, the production of flat products of hot-rolled carbon steel, firms have indicated that their production was zero during the 2006/07 – 20008/09 period. Furthermore, it my understanding that firms do not currently produce this product, nor have an intention to produce it. Where this is the case, I propose that the relevant product should not be prescribed in regulations as there is currently no base data available to calculate relevant allocative baselines.

28. Proposed activity descriptions and prescribed products are set out in Appendix 3.

Trade exposure

29. In order to qualify for industrial allocation as a prescribed eligible industrial activity, an activity must be trade-exposed. Section 161C(1)(c) of the Act provides that an activity is trade-exposed unless, in the Minister's opinion,-

    a. there is no international trade of the output of the activity across oceans; or

    b. it is not economically viable to import or export the output of the activity.

30. I am satisfied that the outputs for all proposed Group One activities are internationally traded across oceans and could viably be economically imported or exported. Therefore, these activities should be classified as trade-exposed.

Emissions intensity classifications and allocative baselines

31. As outlined above, firms are entitled to allocation if they carry out an eligible industrial activity. The number of units a firm receives for production in a given year is calculated using the following formula:

Allocation = Level of Assistance × Quantity of Production × Allocative Baseline

32. The Act provides for initial levels of assistance of 90% for highly emissions-intensive activities and 60% for moderately emissions-intensive activities. An activity is classified as highly emissions-intensive if it generates more than 1,600 tonnes carbon dioxide equivalent (tCO_2-e) per million dollars revenue; and moderately emissions-intensive if it generates between 800 and 1,600 tCO_2-e per million dollars revenue. Allocative baselines are based on historic data and are calculated from total emissions divided by total production.

33. Based on the data submitted by firms, I propose the emissions intensity classifications and allocative baselines set out in Appendix 1 are prescribed in regulations.

Consultation

34. This paper was prepared by the Ministry for the Environment. The Ministry of Agriculture and Fisheries, Ministry of Economic Development, Ministry of Foreign Affairs and Trade, Ministry of Transport and the Treasury were consulted and concur with the content of this paper.

35. The Department of the Prime Minister and Cabinet was also informed.

36. Section 161F of the Act prescribes consultation requirements that must apply prior to determining activity definitions for the purposes of issuing notices for the purposes of data collection under section 161D. These consultation requirements have been complied with in relation to each of the proposed eligible industrial activities set out in this paper. Accordingly, the activity descriptions and prescribed products proposed in this paper have been subject to consultation.

Financial implications

37. The Climate Change Response Act 2002 provides for allocation to people who carry out eligible industrial activities and appropriations broadly account for this fiscal cost. Determining eligibility, emissions intensity and allocative baselines for specific activities will affect the overall fiscal cost for industrial allocation.

38. On 28 June 2010, Cabinet approved the making of regulations providing for allocation to Group One activities [Cab Min (10) 23/6 refers]. The initial per annum fiscal cost for Group One activities (excluding aluminium) is estimated at $36m (for a full year of production). The fiscal cost of allocation for aluminium over the 1 July 2010 to 31 December 2010 period is estimated at [deleted] (for six months of production). It is estimated that Group One activities represent

52% of the number of units that will initially be allocated for eligible industrial activities.

39. As noted in further detail below, the initial per annum fiscal cost of industrial allocation for Group Two activities is estimated at $14m (for a full year of production). It is estimated that Group Two activities represent 17% of the number of units that will initially be allocated for eligible industrial activities.

40. Based on the emissions intensity classifications and allocative baselines outlined in this paper, the fiscal costs of industrial allocation for each Group Two activity are estimated as follows:[8]

Activity	Fiscal cost ($m)				
	2010/11	2011/12	2012/13	2013/14	2014/15
Carbon steel	[deleted]				
Glass containers					
Cementitious products					
Clay bricks and field tiles					
Total	21.4	14.2	57.0	57.0	57.0

41. Under the Act, firms may apply for provisional allocation at the beginning of a calendar year (or half year in the case of 2010). Provisional allocation is provided in respect of upcoming production for the year in which it is provided, and is subject to a true up at the end of a specified year whereby the number of units transferred is reconciled with actual production. As surrender obligations for the stationary energy and industrial processes sectors commenced on 1 July 2010, there will be two sets of provisional allocation transactions in the 2010/11 financial year. Therefore, costs incurred in 2010/11 represent allocation in respect of production from 1 July 2010 to 31 December 2011. The final accounting treatment of these provisional allocation transactions is being considered by the Treasury and the Ministry for the Environment. The initial per annum fiscal cost of industrial allocation for Group Two activities is estimated at $14m (for a full year of production).

42. Based on data received for Group One and Group Two activities to date, it is estimated that the overall fiscal cost of industrial allocation will be slightly less than previously estimated. However, the precise cost is uncertain due to its dependence on production volumes for each activity and carbon prices.

43. In addition to the Group Two activities outlined above, and the Group One activities for which regulations have already been made, further activities are also being assessed to determine their eligibility for industrial allocation. The

[8] Estimates are based on the 50% progressive obligation and a carbon price of $25 per unit to the end of 2012, and a full obligation and carbon price of $50 per unit after 2012. Estimates are also based on average production from 2006/07 -2008/9 and do not account for any growth in production.

overall fiscal cost of industrial allocation will depend on the eligibility and rates of assistance for further activities. Any final appropriation timing changes required will be set out in the third Cabinet paper for industrial allocation.

Human rights

44. There are no inconsistencies between the proposal and the Human Rights Act 1993.

Legislative implications

45. Prescribing specific activities as eligible industrial activities for the purposes of allocation of New Zealand units under the Act requires regulations to be made under section 161A of the Climate Change Response Act 2002. I recommend that drafting instructions for regulations to achieve this purpose be issued to the Parliamentary Counsel Office (PCO). Because of the complex nature of the technical issues in these proposed regulations and the proposed timeframes, preliminary drafting instructions have been issued to PCO.

Regulatory impact analysis

Regulatory Impact Analysis requirements

46. The Regulatory Impact Analysis requirements apply to the proposal. A Regulatory Impact Statement (RIS) has been prepared and is attached.

Quality of the Impact Analysis

47. The Regulatory Impact Analysis Team (RIAT) has reviewed the RIS prepared by the Ministry for the Environment and associated supporting material, and considers that the information and analysis summarised in the RIS meets the quality assurance criteria.

Consistency with Government Statement on Regulation

48. I have considered the analysis and advice of my officials, as summarised in the attached Regulatory Impact Statement and I am satisfied that, aside from the risks, uncertainties and caveats already noted in this Cabinet paper, the regulatory proposals recommended in this paper:

    - are required in the public interest
    - will deliver the highest net benefits of the practical options available, and
    - are consistent with our commitments in the Government statement "Better Regulation, Less Regulation".

Publicity

49. It is important to provide firms with maximum certainty about the amount of allocation they will receive as soon as practicable. In order to achieve this I propose that this Cabinet paper is proactively released with sensitive information withheld consistent with the Official Information Act 1982.

50. Subject to approval of the matters above, I propose to bring a further paper to Cabinet shortly recommending that regulations be made prescribing eligible

industrial activities for the purposes of industrial allocation under the New Zealand Emissions Trading Scheme. Once regulations have been made and notified in the *New Zealand Gazette* I propose to directly notify firms carrying out eligible industrial activities of their entitlement to apply for industrial allocation.

Recommendations

51. The Minister for Climate Change Issues recommends that Cabinet:

1. Approve the making of regulations under section 161A of the Climate Change Response Act 2002, prescribing the following activities as eligible industrial activities and approve the activity descriptions, prescribed products, emissions intensity classifications and allocative baselines in Appendices 1 and 3 for each of the following activities:

1.1. Manufacturing of carbon steel from cold ferrous feed

1.2. Production of glass containers

1.3. Production of cementitious products

1.4. Production of clay bricks and field tiles

2. Note the initial per annum fiscal cost of industrial allocation for Group Two activities is estimated at $14m (for a full year of production); the overall fiscal cost will depend on eligibility and rates of assistance for further activities that are also being assessed

3. Note it is estimated that the overall fiscal cost of industrial allocation will be slightly less than previously estimated, but the precise cost is uncertain due to its dependence on production volumes for each activity and carbon prices.

4. Note changes to the timing of appropriations may need to be made and these will be submitted to Cabinet at a later date

5. Agree that the Minister for Climate Change Issues may issue drafting instructions to Parliamentary Counsel Office to draft regulations

6. Invite the Minister for Climate Change Issues to present a further paper to Cabinet shortly seeking approval of regulations prescribing eligible industrial activities under the Climate Change Response Act 2002

7. Agree that this Cabinet paper should be proactively released with sensitive information withheld consistent with the Official Information Act 1982

8. Authorise the Minister for Climate Change Issues to directly notify firms carrying out eligible industrial activities of their entitlement to apply for industrial allocation and to undertake any other necessary publicity for this purpose

9. Invite the Minister for Climate Change Issues to present further papers to Cabinet seeking agreement to providing industrial allocation to further activities that satisfy emissions intensity and trade exposure tests under the Climate Change Response Act 2002

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Hon Dr Nick Smith
Minister for Climate Change Issues
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Appendix 1: Emissions intensity classifications and allocative baselines

Activity	Emissions intensity	Product	Allocative baseline
Carbon steel	Moderate	Cast products whether or not hot rolled	0.3896
		Long products which are hot rolled	0.1438
Glass containers	Moderate	Glass containers	0.5884
Cementitious products	High	Clinker	0.9392[9]
		Cement (milled from own clinker)	0.02266[10]
Clay bricks and field tiles	Moderate	Facing bricks and pavers primarily used for façade and landscaping	0.2249
		Field tiles and other clay based products related to the fitting and joining of field tiles and drainage	0.8784
		Fire bricks	0.2209

[9] Emissions from clinker production.
[10] Emissions from milling of clinker into cement.

Appendix 2: Main issues associated with activity descriptions and prescribed products

Production of cementitious products

1. The manufacture of cement has two stages – the production of clinker and the milling of clinker into cement. Initial consultation with the cement industry was for a clinker definition, as proposed for use in Australia. Following discussion with industry regarding the proposed clinker definition, I agreed to expand the activity to include the cement milling stages of the process. This was because clinker in itself is seldom traded and the manufacture of cement is an integrated process in New Zealand.
2. Following this decision further consultation was with industry on the range of options for the allocative baseline for cementitious products (this term was used to be inclusive of both clinker and cement). I decided that the option which posed least financial risk to the Crown, whilst providing the most equitable level of allocation to the two firms, is using multiple allocative baselines. The first baseline covers the emissions associated with the manufacture of clinker. The second allocative baseline is for the additional emissions created in the milling of clinker into cement. A Gazette Notice for data collection for cementitious products was issued on this basis.

Production of clay bricks and field tiles

3. Brick making was identified as being a new activity likely to be emissions intensive and trade exposed. A draft activity definition was circulated to industry. Submitters noted a range of products that had the same inputs and followed the same transformation, with the main difference being in their end uses On this basis I decided on three allocative baselines based on the following three product groupings:
    a. facing bricks and pavers primarily used for façade and landscaping;
    b. field tiles and other clay based products primarily used for drainage; and
    c. fire bricks where these are produced from clay minerals as the raw materials but not where feldspar, silica and other metal oxides are added as a separate raw material which exceeds the 10% cap on additives primarily used in places that have to withstand high temperatures (e.g. kilns).
4. This provided three clearly defined products, which resulted in a smaller impact on firms' individual allocations and would avoid potential over allocation. The three categories can be considered as separate as they have different end uses which are not substitutable.
5. I also decided to place a 10% cap on additives to prevent a broader range of products being captured within the definition. The level of cap was selected as current additive levels are well within this range and it also provides room for innovation as firms look at ways to reduce the environmental impacts of the manufacturing process.

Appendix 3: Activity descriptions and prescribed products

Manufacturing of carbon steel from cold ferrous feed

Activity description

The physical and chemical transformation of cold ferrous feed, such as ferrous scrap and pig iron, by heating and melting (such as where electric power is used as the predominant energy source) into liquid steel, cast carbon steel products and saleable hot-rolled carbon steel products, which commence hot-rolling at over 800°C, where carbon steel is defined as a material which contains by mass more iron (Fe) than any other single element, and has a carbon (C) content less than 2 per cent, where the outputs are:

(a) saleable cast carbon steel products which are not hot rolled

(b) saleable long products of hot-rolled carbon steel.

Product(s)

(a) Tonnes of saleable cast carbon steel products whether or not it is subsequently hot-rolled (where carbon steel means a material which contains by mass more iron (Fe) than any other single element and has a carbon (C) content less than 2 per cent);

(b) tonnes of saleable long products of hot-rolled carbon steel, (where long products of hot-rolled carbon steel means hot-rolled steel products in coils or straight lengths produced in rod, bar and structural/section mills, and are characterised by having one of a variety of cross-sectional shapes (such as I, T, Y, U, V, H, C, L, square, rectangular, round, flat, hexagonal, angle, channel, structural beam profile or rail profile) and their surface finish may be smooth or may contain ribs, grooves, indentations or other deformations produced by the hot-rolling process),

which result from carrying out the activity as described.

Production of clay bricks and field tiles

Activity description

The physical and chemical transformation of clays (including kaolinite and other clay minerals) by controlled mixing, forming, drying and firing of the raw materials at a single location, into:

(a) facing bricks and pavers primarily used for façade and landscaping

(b) field tiles and other clay based products related to the fitting and joining of field tiles and drainage

(c) fire bricks where these are produced from clay minerals as the raw materials but not where feldspar, silica and other metal oxides are added as a separate raw material which exceeds the 10% cap on additives,

where:

- clay makes up at least 90% by weight of the raw materials

- the clay composition includes alumina, silica and varying degrees of metal oxides

- additives to the clay do not exceed 10% by weight of the raw materials

- the saleable product may be in a variety of shapes.

Product(s)

Tonnes of:

(a) facing bricks and pavers primarily used for façade and landscaping

(b) field tiles and other clay based products related to the fitting and joining of field tiles and drainage

(c) fire bricks where these are produced from clay minerals as the raw materials but not where feldspar, silica and other metal oxides are added as a separate raw material which exceeds the 10% cap on additives,

which result from the carrying out of the activity as described and are of saleable quality.

Production of cementitious products

Activity description

The physical and chemical transformation of:

- calcium carbonate compounds ($CaCO_3$, limestone) and/or other calcium carbonate ($CaCO_3$) feedstocks

- clay or other silicon dioxide (SiO_2, silica), iron (Fe), aluminium oxide (Al_2O_3, alumina), and other feedstocks

into cementitious products:

(a) Portland cement clinker (Clinker); and

(b) Cement

involving the conduct of the following process:

1. The fusion of inputs together at a temperature greater than 1000ºC into Portland cement clinker that consists of at least 60% by mass of calcium silicates, and a maximum magnesium oxide (MgO) mass content of 4.5% (Process 1)

   and which may also involve:

2. The further transformation of this Portland cement clinker produced as a result of process one, into cement through a process of blending and grinding with other suitable feedstocks (Process 2)

   where:

   - any Portland cement clinker output that results from this activity is suitable for the subsequent manufacture of cement.

   - any cement output that results from this activity complies with relevant New Zealand Standards for cement: NZS 3122, NZS 3123, and NZS 3125 and

other relevant international standards required for export cement consignments.

Product(s)

a) Tonnes on a dry weight basis of Portland cement clinker that is suitable for the manufacture of cement, as defined below; and

b) tonnes, on a dry weight basis, of cement that meets the relevant New Zealand Standards for cement: NZS 3122, NZS 3123, and NZS 3125 and other relevant international standards required for export cement consignments

which result from carrying out the activity as described.

Production of glass containers

Activity description

The production of glass containers by the physical and chemical transformation of silica (silicon dioxide (SiO2)) and other raw and recycled materials (such as cullet) to produce blown or pressed glass containers, by controlled melting and forming in a contiguous process where the outputs include:

(a) blown and pressed glass containers.

Product(s)

The total tonnes of blown and pressed glass containers that are:

(a) produced by carrying on the activity; and

(b) of saleable quality.