

Draft General Explanation of Restrictions on the Use of Plastic Trays and Packaging Boxes

International waste management has gradually evolved from the early emphasis on appropriate disposal to recycling and reuse, and, in recent years, to assigning greater priority to source management. Reducing the amount of waste produced at the source can lessen the consumption of energy and water resources during subsequent recycling and disposal.

Plastic trays and packaging boxes are used by retailers to package foods such as eggs, fruits and vegetables, fish and meats, pastries, and bread, and are manufactured from materials including polystyrene foam (PS foam), polyethylene terephthalate (PET), polyvinyl chloride (PVC), oriented polystyrene (OPS), polypropylene (PP), or polyethylene (PE); consumption is approximately 310 tons per month. Reducing the use of this type of packaging container made from exhaustible resources at the source can ease environmental impact.

With regard to foreign controls on this type of packaging container, the Korean Environmental Ministry implemented a "synthetic resin packaging material reduction" policy starting in 1998, and revised this policy in 2002. The Korean policy calls for regular annual reductions in the use of plastic packaging materials including egg boxes or trays, apple and pear trays, and trays for agricultural, meat and poultry, and seafood product trays. Targets for 2007 include a reduction by 80% of egg tray use, 45% of egg box use, 25% of apple and pear tray use, and 25% of agricultural, meat and poultry, and seafood product tray use.

In order to limit the use of plastic containers such as trays and packaging boxes, the EPA has planned a disposable container reduction campaign inspired by Korea's policy and implementation experience, responding to the Resource Recycling and Reuse Act's call for "conservation of natural resources, reduction of waste production, promotion of recycling and reuse, mitigation of environmental impact, and establishment of a society in which resources are used in a sustainable manner," and complying with the provision of Article 13 of the Act that states, "The central competent authority may announce that designated public or private premises shall restrict or prohibit the use of goods, packaging, or containers designated and officially announced by the central competent authority". The use of plastic trays and packaging boxes used to package egg products, fresh foods, pastries, and bread in designated hypermarkets and supermarkets, and disposable containers such as cups, bowls, plates, and small dishes used to hold restaurant foods will be restricted in order

to progressively reduce the consumption of exhaustible resources and achieve the conservation of natural resources.

It is estimated that the implementation of this announcement will induce retailers to reduce their monthly consumption of disposable containers -- which include plastic trays, packaging boxes, and cups, bowls, plates, and small dishes -- by approximately 58 tons by reducing container weight or switching to alternative containers made of materials other than plastic.

The key points of this announcement are as follows:

1. Designated public or private premises shall constitute hypermarkets and supermarkets.
2. The scope of designated containers shall include plastic trays and packaging boxes used to pack foods such as eggs, fresh foods, cooked foods, pastries, and breads, and disposable containers such as cups, bowls, plates, and small dishes used to hold restaurant foods, made from plastic materials such as polyethylene (PE), polyethylene terephthalate (PET), polystyrene (PS), polyvinyl chloride (PVC), polyethylene (PE) or polypropylene (PP).
3. Designated public or private premises shall reduce use of designated containers at an annual reduction rate of 25%. Reduction methods shall include use of alternative containers and reduction of weight of designated containers.
4. The formula for calculating the annual reduction rate.
5. Designated public or private premises shall submit reduction plans to the special municipality, county or city competent authority, and shall submit annual reduction results to the special municipality, county or city competent authority after the end of each year.
6. Designated public or private premises shall implement reductions in accordance with their reduction plans. If a premise wishes to change

part of the reduction plan, it shall apply to the special municipality, county or city competent authority to make the change. If, during the year, an initial investigation discovers that a premise has made changes without performing the required change application procedures, the special municipality, county or city competent authority may allow the premise to make a change application within a limited time period.

7. Penalties will be incurred when a designated public or private premise violates this announcement.
8. This announcement shall take effect on December 1, 2006.

Draft Restrictions on the Use of Plastic Trays and Packaging Boxes

Official Announcement	Explanation
Basis: Article 13 of the Resource Recycling and Reuse Act	Legal basis for this announcement
Announcement items:	Content of this announcement
<p>I. Designated public or private premises:</p> <p>1. "Hypermarkets" refer to wholesalers or retailers of general merchandise that combine warehousing and selling in one complex.</p> <p>2. "Supermarkets" refer to enterprises including those within department stores or shopping centers and those which run as consumer cooperatives or producer cooperatives that provide retail sales of daily necessities and food products and have fresh, processed, and prepared food sections.</p>	<p>1. Designated public or private premises shall constitute hypermarkets and supermarkets.</p> <p>2. Supermarkets include those supermarkets within department stores or shopping centers.</p>
<p>II. "Designated Containers" refer to the following types of containers when made from plastic materials such as polyethylene (PE) polyethylene terephthalate (PET), polystyrene (PS), polyvinyl chloride (PVC), polyethylene (PE), or polypropylene (PP). Containers mainly made of paper or plant fibers but containing PE laminate paper or any of the foregoing plastic materials are also included.</p> <p>1. Trays and packaging boxes used to hold egg products such as chicken eggs, duck eggs, quail eggs, and preserved eggs.</p>	<p>1. The determination of the scope of designated containers takes into consideration the feasibility of reducing consumption or replacing</p>

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<p>2. Trays and packaging boxes used to hold fresh foods such as fruits and vegetables, meat products, and seafoods, or dried foods, sushi, fresh salad, cold noodles, or hot foods. However, containers used to hold microwave foods, or foods that must be heated directly or by microwave before consumption, shall not be subject to this restriction.</p> <p>3. Trays and packaging boxes used in the bakery area of a retail store to hold cakes, cookies, steamed cakes, rice flour desserts, pies, pastries, breads, egg tarts, cream puffs, and other products of a similar nature. Containers used for packaging pastry products that must be kept cold (such as ice cream cakes, etc.) shall not be subject to this restriction, however.</p> <p>4. Disposable containers such as cups, bowls, plates, and small dishes used to hold restaurant foods. Containers used to hold restaurant foods that must be heated directly or by microwave before consumption shall not be subject to this restriction.</p>	<p>the container in question.</p> <p>2. Trays, packaging boxes, or disposable containers such as cups, bowls, plates, and small dishes mainly made of paper or plant fibers but containing PE laminate paper or added plastic such as PET, PS, PVC, PE, or PP are considered to be within the scope of designated containers, and their use must be recorded in accordance with item 3 of this official announcement.</p>
<p>III. Use reduction methods:</p> <p>1. Designated public or private premises shall reduce designated container use at an reduction rate of 25%.</p>	<p>1. The annual reduction rate is modeled on the Korean</p>

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<p>2. Designated public or private premises may use the methods listed below to reduce use of designated containers:</p> <p>a. Use of trays, packaging boxes, or disposable containers such as cups, bowls, plates, and small dishes that are not designated containers (hereafter, alternative containers).</p> <p>b. Reduction of the weight of designated containers.</p>	<p>standard.</p> <p>2. Use reduction methods include use of alternative containers and reduction of the weight of designated containers.</p>
<p>IV. The formula for calculating the reduction rate is as follows:</p> <p>Reduction rate = ratio of alternative container use (A) + designated container weight reduction ratio (B)</p> <p>1. Ratio of alternative container use (A)</p> <p>A = (number of alternative container used during year / total number of designated containers and alternative containers used during year) x 100%</p> <p>2. Designated container weight reduction ratio (B)</p> <p>B = { [number of designated container with i^{th} specification during year x (weight of individual designated container with i^{th} specification during base year - weight of individual designated container with i^{th} specification during year)] / (number of designated containers with i^{th} specification used during year x weight of individual designated container with i^{th} specification during base year)} x 100%</p> <p>The foregoing base year is 2006.</p>	<p>1. The formula for calculating the annual reduction rate is determined on the basis of the reduction methods specified in official announcement item 3.</p> <p>2. In consideration of the fact that there are certain limits on reduction of the weight of designated containers, calculation of "designated container</p>

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	weight reduction ratio" uniformly takes 2006 weight as a baseline value.
<p>V. Apart from reducing designated containers use in accordance with announcement item 3, designated public or private premises shall also comply with the following items:</p> <ol style="list-style-type: none"> 1. Designated public or private premises shall draft reduction plans in the designated format, and shall submit a reduction plan for the subsequent year to the special municipality, county or city competent authority before November 30 of each year. However, the reduction plan for 2007 must be submitted before April 30, 2007. However, the reduction plan for 2007 must be submitted before April 30, 2007. 2. A newly established designated public or private premise shall submit a reduction plan to the special municipality, county or city competent authority within two months after receiving the special municipality, county or city competent authority's notification. The annual period shall be from the day of receipt of notification from the special municipality, county or city competent authority to December 31. 3. A reduction plan shall include the following content: <ol style="list-style-type: none"> a. The product names, quantities, and periods of the alternative containers expected to be used, and the materials from which the alternative 	<ol style="list-style-type: none"> 1. Designated public or private premises shall submit reduction plans to the special municipality, county or city competent authority. 2. Annual periods shall be from January 1 to December 31 of each year. The annual period for a newly established designated public or private premise shall be from the day of receipt of

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<p>containers are made.</p> <p>b. The specifications, name of products contained in, quantities, and periods of the designated containers the weight of which is expected to be reduced.</p> <p>c. When switching to the use of an alternative container, a testing report proving that the raw materials do not contain any plastic materials such as polyethylene (PE) polyethylene terephthalate (PET), polystyrene (PS), polyvinyl chloride (PVC), polyethylene (PE), or polypropylene (PP) must be attached. Testing methods may include Fourier transform infrared (FTIR), differential scanning calorimetry (DSC), nuclear magnetic resonance (NMR), elemental analysis (EA), or thermogravimetric analysis (TGA).</p> <p>d. The foregoing testing report must be produced by a laboratory that is part of the ROC laboratory certification system.</p> <p>e. Methods or documents allowing verification of reduction results during the year.</p> <p>f. Other items designated by the central competent authority.</p> <p>4. Designated public or private premises shall fill out annual reduction results in the designated format, and shall submit reduction results to the special municipality, county or city competent authority by March 31 of subsequent year.</p> <p>5. Annual reduction results shall include the following content:</p> <p>1. The product names, quantities, and periods of the alternative containers expected to be used, and</p>	<p>notification from the special municipality, county or city competent authority to December 31.</p> <p>3. Content of reduction plan.</p> <p>4. Designated public or private premises shall submit annual reduction results to the special municipality, county or city competent authority.</p> <p>5. Content of annual reduction results.</p>

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<p>the materials from which the alternative containers are made.</p> <p>2. The specifications, name of products contained in, quantities, and periods of the designated containers the weight of which is expected to be reduced.</p> <p>3. Documents verifying annual reduction results.</p> <p>4. Other items designated by the central competent authority.</p>	
<p>VI. Reduction plan changes:</p> <p>1. Designated public or private premises shall implement reductions in accordance with their reduction plans. When any of the following situations applies with regard to the content of a reduction plan, the designated public or private premise shall apply to the special municipality, county or city competent authority to change its reduction plan at least ten days before the product in question goes on sale.</p> <p>a. Change in the product name or period of an alternative container expected to be used, or in the material of an alternative container.</p> <p>b. The specifications, name of products contained in, quantities, and periods of the designated containers the weight of which is expected to be reduced.</p> <p>2. If, during a year, a first investigation discovers that a designated public or private premise has made changes without performing the required change application procedures, the special municipality, county or city competent authority may allow the designated public or private premise to apply for a change within 30 days.</p>	<p>1. Designated public or private premises shall implement reductions in accordance with their reduction plans. If a premise wishes to change part of the reduction plan, it shall apply to the special municipality, county or city competent authority to make the change.</p> <p>2. If, during the year, a first</p>

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	<p>investigation discovers that a premise has made changes without performing the required change application procedures, the special municipality, county or city competent authority may allow the premise to make a change application within a limited time period.</p>
<p>VII. The matter shall be handled in accordance with Article 26, Paragraph 1, Subparagraph 2 of the Resource Recycling and Reuse Act when one of the following circumstances involving a designated public or private premise occurs:</p> <ol style="list-style-type: none"> 1. Failure to achieve the annual reduction rate, in violation of announcement item 3. (1). 2. Failure to submit a reduction plan, in violation of announcement item 5. (1) and (2). 3. Failure to submit annual reduction results, in violation of announcement item 5. (4). 	<p>Penalties when a designated public or private premise violates this announcement.</p>

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<p>4. Failure to apply to change a reduction plan during the time period provided by the special municipality, county or city competent authority, in violation of announcement item 6. (2).</p> <p>5. A second or subsequent investigation during a year discovers that a designated public or private premise has made changes without performing the required change application procedures.</p>	
<p>VII. These announcements shall take effect on December 1, 2006.</p>	<p>Date upon which these announcements shall take effect.</p>