



Recycling Laws International

Published by Raymond Communications, Inc

REGULATORY NEWS FOR THE GLOBAL MARKETPLACE

Vol. 9 # 5 September-October 2003

Key European Decisions Expected Soon

As we go to press this issue, a number of key issues for packagers and electronics makers are anticipated in late September or October. However, since much of the debate has already taken place, observers appear confident of many outcomes.

PACKAGING - The Directive on Packaging and Packaging Waste is expected to be amended finally in conciliation committee at the European Commission. As we reported last time, ([RLI July 2003](#)) the only items left to determine are some dates for the rural countries, and enforcement of "essential requirements." Some observers note that if countries enforce the export restrictions on packaging scrap, manufacturers could face higher fees on plastics. Eco-Emballages has already announced plans for increased fees. See story Pg.2

The issue will be followed on email. Meanwhile, we will have stories on how amendments will affect fees in member states.

ELECTRONICS: The European Parliament is moving quickly to amend the waste electrical and electronics directive (WEEE) to relieve companies from taking back all historic commercial electronics waste. They will only have to take back one for one. Many more issues must be hashed out in committees to clarify who pays whom, and what constitutes an electronic item. We have some exclusive news from France (See Mitchell's story) and some analysis from Chris Pollet at White & Case in Brussels this issue. We will also have

future articles covering how member states will be implementing the WEE/RoHS directives.

GERMANY: The deposit chaos in Germany has indeed disrupted the beverage market, with many retailers refusing to carry one-way containers. The German parliament is poised to amend the original packaging ordinance to do away with the 72% refillables quota and replace it with a one-way deposit on "non-ecologically favorable" containers, regardless of contents.

However, three weeks from the October deadline, there is still no national clearinghouse for deposits. The mess has cost thousands of jobs according to press reports – while another study claims deposits will create 10,000 more jobs on the refilling end!

The market problems are well-covered in the general press, so we will concentrate on determining what the fallout will be for companies exporting product to Germany. Stay tuned!

KOREA - We are in the process of asking more questions on implementation of new packaging and electronics laws in South Korea. Please note that we receive conflicting information, and getting responses is slow. We now have an extra translator/researcher, and we will be translating some of the original 120-page law. Note, however, that the Korean legislature is amending these laws again this year.

Michele Raymond

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France Working Out WEEE Details

by Rick Mitchell

Paris -- The big question raised by the European Union's WEEE directive remains "Who is going to pay?"

Like other EU members, France has less than a year left to transpose the directive into national law. It is developing a governmental decree to unify existing rules and laws and add new ones as necessary.

The current draft makes manufacturers and retailers that sell their own brands financially responsible for WEEE, as well as for historical waste sold before the directive's August 13, 2005 deadline.

Manufacturers must provide certificates from a credit institution or insurance company guaranteeing they can meet their financial obligations. A company's tab would be calculated according to its market share for the year.

Arnaud Brunet, general manager for external affairs at Sony France, told RLI that the draft also requires retailers to take back old equipment for free, according to new equipment purchased. "This presupposes that retailers also have to pay," Brunet said, adding that, "A decree cannot spell out everything, so negotiations are underway to determine the details.

"The economic machine is fed by the consumer, so of course he will end up paying a portion of the costs generated," Brunet said.

The French government estimates that the directive could add from 2% to 10% to product price, depending on who pays what. "Obviously, it's in the producers' interests to minimize price increases," said Brunet. "Free market competition will be the rule." One possibility is for the recycling fee be noted separately on the price tag.

The decree draft requires all equipment be marked to show when it was put on the market. Design must limit use of dangerous substances and ease dismantling, recycling and maximum reuse of materials.

Earlier drafts were more strict than the directive, Brunet said. "It's something to which we're paying close attention. This will be for a European market, so it's important that rules are as homogenous as possible. It would be intolerable if French businesses were weighed down by stricter obligations and costs than their European competition," he said.

The French bureaucracy can seem a swamp, especially to a foreign business owner.

Fortunately, the decree allows commercial organizations to help manufacturers and retailers fulfill their obligations. The first such organization was SCRELEC, which kicked off a large WEEE program in metropolitan Nantes in July 2002. (See RLI May-June 2003)

SCRELEC hopes to collect 5,500 tons over the next two years, which is roughly equal to the 4 kilograms per capita the EU directive will require by 2006. The program collected 515 tons in its first six months.

A new decree draft version is expected by the end of

October. Brunet notes "The government's objective is to have a version that is quasi-final by year's end. But 'final' from a technical standpoint, not political. That will take longer."

Eco Emballages to Increase Fees

Amendments to the EU packaging directive which will oblige countries to recycle 55 % of glass, paper, board, metals and plastics by 2008, has prompted the French collection organization Eco Emballages to raise its fees 10% for 2005.

Faced with a projected deficit of € 33 million for the end of 2004, the French firm requested a raise of 20 %, but were finally voted a 10 % Green Dot raise in August.

Initially in favor of a 20 % rise, French environment ministers voted in line with the downsized 10 % increase after receiving threats of possible inflationary effects.

Constantly in deficit since 2001, Eco Emballages, the main packaging collection group in France, told a major French recycling magazine that raising fees was the only way to avoid going out of business.

Georges Ortola, managing director of sister company, Adelphe, disagreed. Claiming that the rise was "unjustified." The CEO said that the packaging industry should use "greater efficiency," but that work was also required further down the line.

Stressing the need for carefully adapted recovery and recycling systems, Ortola also suggested that recycling should be extended to include electronic waste.

Alain Randour, CEO of Symideme Company, which manages selective collection of household waste in the Weppes area of France, was among recyclers who criticized the 10 % increase, saying it was too low and the deficit would inevitably be picked up by taxpayers.

Accusing manufacturers of "over imagination," Randour said that in a bid to get consumers to buy at any price they have dreamt up over elaborate packaging, creating more work for recyclers.

"Consumers should refuse to buy," he fumed, and in a recent interview with a leading French environmental magazine he suggested it was time the onus was put on French businesses to "foot the bill," and to maximize environmentally friendly disposal of waste.

Eco-Emballages, which initially charged manufacturers a flat fee "per package," moved to a sliding-scale fee based on volume, weight, packaging material, and recyclability, in April 2000.

Editor's Notes: *Eco-Emballages has about 9,500 company members, (as of 1999) and the majority of its budget goes to payments for collection of packaging by municipalities. (Turnover was 282.8 million in 2001.) Instead of 700 waste districts in Germany, Eco-Emballages must deal with 36,500 municipalities (akin to the U.S.)*

The non-profit has met the government overall "valorization" goal of 75%, however, much of the goal has been met with incineration. Amendments to the packaging directive require material recovery of 55%.

Eco-Emballages has built-in incentives for not introducing new non-recyclable packages, as well as incentives to for recycled material, unlike other collection fees programs in Europe. Its fees are about one-eighth those in Germany.

(Reported by Heidi-Fuller-Love in France)

Landbell AG Officially Allowed As DSD Competitor

by Hagen Lang

A decade of struggle has paid off for recycling company Landbell AG. The German Federal State of Hesse (HMULV) has declared that the company meets the Packaging Ordinance's requirements and can begin operations.

Landbell AG is the first regional competitor for Duales System Deutschland AG (DSD), Germany's nationwide recycling system for packaging waste. HMLUV's spokeswoman Manuela Scharfenberg, told RLI that the ruling should help control costs. "This enables competition between different dual recycling systems for the first time, something the EU-Commission and the German Cartel Office have been wanting for a long time."

The company had to secure letters of agreement with all 29 Hessian local authorities and make regional contracts with local waste management enterprises. The Environmental Ministry is also considering allowing a third recycling company to operate in Hesse. Though not yet named, Interseroh AG is the most likely candidate.

The decision of the Christian Democrat government was widely acclaimed throughout the political spectrum. Both environmentalists and Social Democrats, though at odds over the issue in Hesse, praised the decision, as did Germany's biggest industry organizations, BDE and BVSE.

Germany's Packaging Ordinance gives state governments the power to choose local packaging recyclers, so Hesse's decision might encourage other Federal States to give DSD some competition.

According to Landbell AG's CEO Wolfgang Schertz, the Federal States of Lower Saxony, Saarland, Rhineland-Palatinate, Hamburg, Berlin and Bavaria will also give Landbell the green light. Schertz told RLI that Landbell has already established agreements with 140 of Germany's 430 local authorities and waste management enterprises. He hopes to capture at least 10 % of DSD's annual €1.87 billion income within the next 12 months.

Schertz maintains that Landbell can recycle packaging waste more cheaply than DSD. He is also doubtful that other recyclers will enter the market because of the many financial and administrative hurdles.

When asked about the possibility of DSD bringing

legal action against Landbell, Schertz expressed confidence that his company has not given any legal grounds for litigation.

Landbell AG managed to survive for many years without generating income due solely to the principal shareholder, Frank Binder, and his willingness to increase share capital over time to €16.5 Million. Binder is also the leading individual shareholder of Merck pharmaceutical corporate group.

Contact: <http://www.landbell.de> email: info@landbell.de tel. +49-6131-235652-0

<http://hmulv.hessen.de> email: presse@hmulv.hessen.de tel. +49-611-815102

(Lang is a German PHD student and former journalist, with many years of experience in the solid waste industry.)

10 Year Anniversary for ARA

The Austrian PRO, Altstoff Recycling Austria, is celebrating its 10th anniversary by signing its 13,350th license partner. Since it began, ARA has made substantial cuts in its fees - from €310 ton in 1993, to €170 ton this year. ARA is releasing its 2004 fee structure this month, but further fee reductions are likely to be small as cost-cutting tightens.

Austria Divided on Packaging Recycling Rates

Austria is quarreling over deposits on PET beverage packaging after new data showed a decrease in some recycling rates. Even so, the Environmental Ministry (BMLFUW) declares the voluntary commitment of Austrian industry a success.

Industry has pledged to achieve a 50% recycling rate for PET bottles by 2004. According to Environmental Minister Josef Pröll, the collection rate has risen from 74 % to 79 %, and the material recycling rate rose from 33 % to 40 %. He calls this a "world class" achievement, and thinks it likely that the voluntary commitment will achieve its goal of 50 % material recycling rate by 2004.

The Ministry acknowledged a small decrease in mineral water sold in reusable packages - from 57.3 % to 53.6 %. This was fervently challenged by Ulli Sima, environmental spokeswoman of the Social Democratic Party SP in opposition.

According to her own inquiry, only 20% (at most) of mineral water is sold in reusable packages, down from 96 % in 1994. Sima demanded immediate action by the government.

While she is not absolutely against a deposit on packaging, both her social-democratic SP and the conservative government have argued against a deposit system like Germany's. Contact: <http://www.lebensministerium.at> tel. +43-1-71100-0, <http://www.ullisima.at> fax +43-1-40130-3729

Belgium: Ecotax Postponed Again

Beverage producers in Belgium have a little breathing room now that the government has postponed the implementation of the ecotax until January 2004. The government acknowledged that the prior deadline of July 2003 did not allow producers enough time to apply for exemption on the basis of recycled content (50% for clear glass, 70% for colored glass.)

Industry vows it will continue to lobby against the law on the grounds that it would not promote refillable packaging or offset money lost by the reduction of the VAT on non-alcoholic drinks, also scheduled for January.

DENMARK: Lomborg Comes Under Attack

The scientific credibility of Environmental skeptic Bjorn Lomborg and his government-funded Environmental Assessment Institute (IMV) has come under attack by a panel of Scandinavian scientists.

The panel evaluated eight of the IMV's reports and found "that none of the reports make any pretense of scientific work or methodological development in the traditional scientific sense, and all of the reports are based on external sources."

Danish opposition spokeswoman Pernille Blach Hansen, accuses the Danish government of sabotaging the environmental debate by chairing IMV with a director who is not doing legitimate scientific work. She has described the institute's work as "more like letters to the editor than credible scientific reports."

Germany: Paper Co. Boosts Recycled Use

Although Germany has high paper recycling rates, it is not reaching similar levels of recycled paper use, according to Danish paper giant Dalum Papir.

The company has launched a marketing campaign to boost consumption of recycled paper, particularly for products with low recycled content such as school books (nominal recycled content), office paper (only 16%), graphics paper (36%), tissues (69%) and toilet paper (71%). Dalum maintains that even the latter products could boost the amount of recycled content, and is targeting businesses with an intensive mailing campaign.

German Industry Responds to EU Chemicals Plans

German industry, government and trade unions have issued a joint statement in response to the EU's new chemicals policy, which was open for consultation earlier this summer. The next paper is due by November. The EU plans to introduce the new REACH system which, among other things, would require all chemicals produced above a low tonnage to be tested and registered before being officially approved. The system would apply to long-used and new substances.

The Germans outlined three main concerns:

- The registration process is "too bureaucratic and complex" and should be simplified to be the "fast, simple and cost-efficient procedures" the EU originally intended
- The chemical safety tests are burdensome, especially for SMEs
- Company confidentiality is not assured under the system

The group wants the system evaluated for its financial effects on the chemical industry and on the general economy. The chemicals white paper must be viewed with some fear for the German industry, government and unions to agree on anything, so it will be interesting to see how the EC responds to this joint statement.

Contact: German chemicals industry trade association VCI: <http://www.vci.de> +49 69 2556 1550 German Environment Ministry: <http://www.bmu.de> +49 30 3050

Finland: Wood Recycling Targets: An Issue?

Finland's packaging recovery organization, PYR, has expressed concern that if the government imposes a 15% recycling target on wood packaging, the country will not meet the EU revised recovery rate.

The PYR maintains that Finland uses mostly virgin wood with little potential for recovery.

Used wooden packaging is incinerated for energy recovery, not recycled. Most wood packaging is shipping pallets, which if counted as a recyclable material, would cause Finland to fail to meet the EU's stringent recycling targets.

Finland recycles about 50% of the 440,000 tons of packaging materials that enter the market each year, and wood has not been included in the figures. If added, it would reduce the recycling rate by about 10%. The government is working to reconcile the problem.

Finnish Recycling Exceeds EU Targets

Finland achieved an overall reuse rate of 62% in 2001 according to the latest reports. This was down 1% from 2000 figures, but still exceeds EU requirements. Metal and glass showed the greatest recovery rates, 88% and 81%, respectively.

The figures show that Finland now meets all the requirements of the EU packaging waste directive, but would not if wood packaging is included in the statistics. (See above brief)

The figures were collected using questionnaires by PYR, the Finnish packaging recovery organization. Approximately 10,000 organizations representing about 32,000 individual businesses, completed the questionnaires.

Paper Recycling Record in Italy

A boost in the amount of separately collected paper has led to an all-time record volume of recycled paper in Italy. According to the 8th report of the Consortium For The Recycling Of Paper and Cardboard-Packaging (Comieco) in Milan, Italy managed to collect 1.6 million tons of paper and board through separate collection in 2002, 100.000 tons more than in 2001.

This contributed to a total sum of 4.9 million tons of collected paper. The per capita amount of separately collected paper still shows a big difference geographic difference; the north leads the south with 40.9 kg of paper versus 13.5 kg per capita.

Comieco also achieved the recycling goals that were defined when it was founded in 1997. The law required Comieco to achieve a material waste recycling rate of 45 % and a combined thermal and material waste recycling rate of 50 %. The material recycling rate actually rose to 50 % with a thermic recycling rate of additional 6 %.

The development is said to have helped reduce the burden on the over stressed waste management and landfill system in southern Italy, afflicted by corruption and poor standards, that forced authorities to rely increasingly on waste exports.

Contact:(Comieco), <http://www.comieco.org> tel. +39-02-550241

Mixed Success for Switzerland's Packaging Recycling Activities

The recovery of PET non-returnable bottles in 2002 was insufficient, according to the Swiss Environmental Ministry (BUWAL). The Ministry attributed the decrease, from 80 % to 72 %, to better statistical measurements and not to lack of cooperation. Still, the development threatens to trigger a deposit-based system for PET bottles.

Switzerland's ordinance on beverage packaging mandates PET deposits if the recycling rate falls below 75 %. BUWAL nevertheless tries to avoid introducing deposits because of the heavy expense for consumers and industry, and met with industry representatives, wholesalers and local authorities to discuss the issue. The country uses more than 4 billion PET bottles annually.

The short-term solution will be to create more collection points, and to elicit better cooperation from retailers by making it clear that they will have to take back the packaging they sell if recycling rates do not increase.

The discussion on PET deposits overshadowed the impressive 94% recycling rate for glass and 91% for aluminum in 2002. Contact: <http://www.umwelt-schweiz.ch> tel. +41-31-32293-11

Swiss Environment Agency Report Supports Pay-Per-Bag

Two separate Swiss Environment Ministry studies show that charging per garbage bag works in reducing the amount of residual household waste. Despite a 3.9% increase in population in the last 10 years, Switzerland produced 15% less waste.

The research also showed that there is an immediate 30% reduction in waste when the charge is instituted, and the amount of separated recyclables rises proportionately. Surveys also show that the Swiss public accept the charges, and 50% improved their waste sorting habits after they were imposed. BUWAL <http://www.buwal.ch> +41 31 322 6956

Swiss Glass Recycling Success

Switzerland's levy on glass bottles has had a successful first year, reports glass PRO VetroSwiss. The fee of SF 0.2 to SF 0.6 per bottle went into effect January 1, 2002 to cover glass collection and recycling costs.

During the first year, deposits came to SF 24.4million, while SF18.4million went to local governments and businesses for collection. The difference of SF 6million gives VetroSwiss financial reserves to support any future deficit and covers its administration and start-up costs. Switzerland collected 290,100 tons of glass in 2002.

United Kingdom:

MSW recycling rates confirmed

MSW recycling rates in the UK rose slightly in 2001-2002, to 12.4% from 11.2% the previous year. The rate has doubled in the last five years. However, the amount of waste rose by 2%.

Preliminary results released back in May have been confirmed by the official report published at the end of August. They also show that curbside collection schemes now cover 58% of UK households.

Packaging Recovery Note recycling Rates investigation

The UK's tradable Packaging Recovery Note (PRN) system has come under official scrutiny after it was revealed that some PRNs were issued inappropriately. A government investigation showed discrepancies that cut wood recovery figures for 2002 by 76,400 tons.

Criminal intent is not suspected, and it is believed that poor quality control led to mixed wood waste being classed as packaging waste in many cases. Third party verification is now in the early stages of development.

Similar investigations are underway in the plastics recycling sector, and results for the last three years are under review. It seems too many plastics PRNs are being issued, which is pushing PRN prices down and cutting the funding for recycling that the trade-based system is supposed to supply.

Packaging Waste Law Revisions under Consultation

The UK government is consulting on revisions to the Producer Responsibility (Packaging Waste) regulations, both to bring recycling targets for 2004-2008 in line with changes at the European level, and to

determine whether the UK's market-based recycling permit scheme should be made law.

Other issues include stricter enforcement, and changes to the registration and accreditation system for recyclers.

The consultation paper calculates that the UK will have to recover an additional 1.3 million tons of packaging to meet its European targets by 2008. The targets are: 60% recovery/55% recycling, and material specific targets of 60% paper, 60% glass, 50% metals, 22.5% plastic and 15% wood.

The paper reports that glass and aluminium packaging recycling targets must be substantially increased, and much more household waste must be recovered, as industrial and commercial packaging recycling rates are already high.

On the legal side, the document asks whether compliance schemes should be responsible for their members' recycling obligations, whether schemes should be recertified periodically, and if the system of accrediting reprocessors should be made law. Annual registration fees to cover additional enforcement costs are also being considered.

Landfill Permits Trading Consultation

The UK is also consulting on the first tradable landfill permits scheme in Europe which is due to start next year. Each local government will be given a tonnage limit on the amount of waste that can be landfilled annually, which will decrease incrementally until 2020. Under the scheme, the UK would meet its overall landfill targets while allowing a certain amount of flexibility for local governments who could trade their allowances with other disposal authorities.

The government wants input on when the system should start, how to calculate allowances and assess penalties, and developing a monitoring system. The deadline for responses is November 21, with the final law to be published in time for implementation next year. <http://www.defra.gov.uk>

Scotland: Greens Lobby for Plastic Bag Tax

The Scottish Green party and Friends of the Earth are calling for a plastic bag tax following the success of a similar levy in Ireland. As we understand it, Scottish taxes can only be introduced with the approval of the

UK central government, but there have been rumors that Britain's "tax and spend" Chancellor of the Exchequer, Gordon Brown, may introduce more green taxes as an alternative to unpopular income tax rises. These could apply throughout the UK, or be tested in Scotland first. -*Jackie Oliver*

New Czech Landfill Law In Force

Regulations aimed at a 20% reduction in landfilled waste by 2010 went into effect in the Czech Republic on July 1.

Under the Waste Management Plan of the Czech

Republic (Gov Reg. No. 197/2003), all landfills will be inspected to determine their operating and technical status by December 31, 2004. Those failing to meet regulatory standards will be closed by July 16, 2009.

A spokesman for the U.S. Department of Commerce in Prague noted that "In 2000, the overall production of waste in the Czech Republic reached 44 million tons, out of which 92% was generated by companies."

The government's plan is intended to prevent communal waste from being landfilled. Currently, 27% of all waste, and 70% of communal waste goes to landfills.

The new regulations also state that :

- Waste should be landfilled when there is no other alternative available at the given site and time.
- Support be provided for conversion of existing landfills into complex waste management centers.
- There be regular evaluations of intermediate targets for gradually reducing landfill disposal, and measures be taken to ensure that prohibited materials, such as tires, liquids, and sanitary waste, are not deposited.
- The amount of biologically degradable municipal wastes deposited in landfills be significantly decreased. This will be done by separating those wastes produced by households, businesses, industry, and offices. The government will also support the creation of "regional installations for the management of municipal waste so as to achieve a gradual reduction in biologically degradable municipal waste deposited in landfills."

Emphasis will be given to the construction of composting plants.

Under the Plan, waste recycling levels will also be raised from the current 8% to 50% by end of 2012.

- *J. Paige*

Durables & Electronics Recycling



WEEE Implementation, Chemicals a Challenge

By Chris Pollet

White & Case, Brussels

Ever since European parliamentarians and national ministers reached an agreement on the two electronic waste directives, attention focused on how this would have to be implemented in practice.

It is probably fair to say that more problems have emerged than had been anticipated. First of all, the European Commission had to quickly issue a new proposal to change the WEEE directive that had only just been adopted. Companies had told them that basically they would have to file for bankruptcy protection if the new rules on financing old B2B waste were not changed.

Forward-looking accountants had pointed out that huge, crippling financial reserves would be needed to cover for the upcoming costs of dealing with this waste. In particular, companies with larger historical than current market shares would face disproportionate financial burdens. Under gentle prodding from Parliament and ministers, the Commission produced a new text that seems to primarily shift the financial burden to the professional users of the B2B equipment.

Other problems have not fared as well, however. Since January 2003, four meetings have already had to be held between the European Commission and technical experts of the Member States (meeting in the so-called Technical Adaptation Committee or TAC). But this group has not managed to come up with any real solutions yet. For instance, it is not clear at all if a seemingly growing list of borderline products are really covered by the two directives. Is a musical greeting card (that contains a small chip) a piece of electronic equipment that should really be recycled? Are car radios and GPS systems to be covered by the electronic waste directives or by the End of Life Vehicles directive (ELV)? This does make a difference because the ELV substance ban is not as stringent as the RoHS ban. Or what about an acoustic piano that only contains two or three electronic devices that are not normally switched on, but could be used if the player so wishes? Does that make the piano a piece of equipment that is to be covered by the electronic waste directive?

The TAC is now trying to decide whether it wants to draw up a list of generic criteria that would determine whether a product should be covered. In the case of the piano, it might for instance, be envisaged that it be excluded on the ground "that it is a product that does not need electricity to function".

A solution appears to have been found on the question of how high or low to set the maximum concentration value for the six banned substances.

Although lead, cadmium, mercury, chrome VI, and

two brominated flame retardants are banned, these maximum concentration values are meant to cover for the unintended presence of very small quantities of one of the substances. Or in other words, impurities as a result of the production process and/or caused by naturally occurring background levels. The consensus values are 0.01% for the presence of cadmium, and 0.1% for the other substances.

On a wide variety of other pending problems, it seems more difficult to make progress. For instance, confusion has arisen over whether an importer who ships goods from one EU Member State into another should have to take on the responsibilities (including financial) of a producer. One interpretation is that because the EU market is supposed to be a single market without internal borders, at least for the trade of goods, you can no longer consider shipping into a Member State from another Member State to be "imports".

So therefore, intra-EU importers would never have to take on the responsibilities the directive imposes on producers. The opposite interpretation will no doubt mean that the organization of an-EU wide sales and distribution network will become more complicated from the point of view of who exactly has to take on the WEEE obligations. In any case, if you ship goods from the US or Japan into the EU, as an importer you will have to take on the responsibilities of the producer.

A long list of requests for exemptions of certain products from the RoHS substance ban has been received by the European Commission. An assessment of these requests has been started. An important element in this will be whether reliable alternatives are available for the use of a banned substance in a particular application. White & Case is counseling applicants on the process of submitting requests for exemptions from the substance ban. Recent successes include exemptions from the End of Life Vehicle substance ban for specific car components.

Chemicals: Another Enforcement Challenge

The European Commission is currently mulling over detailed provisions of a draft proposal that would completely overhaul the way chemicals are being dealt with. A significant change with the existing legislative requirements on chemicals is that it will most likely directly involve finished products.

The Commission is considering how to bring substances that are present in finished products such as electronic goods or cars into the scope of the new legislation. This would mean that under certain circumstances, manufacturers of finished goods would have to take on responsibilities that normally only fall on the chemicals industry.

plans each February on how they plan to reduce their use of cushioning material.

Larger retail chains are not allowed to re-package consumer items for group sales, as is done with shrinkwrap at warehouse retailers. In addition, the new law requires home appliance retailers or other sellers to take back the packaging unless the consumer specifically requests to keep it.

The law also bans use of PVC shrink wraps and laminated PVC for packaging as of January 2001.

There is legislation in the works that will amend these laws again, and there was a proposal that would not have allowed recycling to count towards the reduction goals for plastic cushioning. Industry was opposing the idea.

Note there are government required fees on **pesticides, toxic products, cosmetics, antifreeze, gum, disposable diapers, tobacco, primary plastic products including plastics for instrument assembling, and plastic pipe.** There are also **empty space ratio** requirements on certain packaging. (Please see [Country Page](#) for S. Korea.)

A PRO is being formed to handle electronics takeback, though we do not yet have information on fees.

Information: KORECO is attempting to be more transparent, placing more English information on its web site. However, news items are not in English.

For basic regulation and fee information on packaging and product, check <http://www.koreco.or.kr>. For details on how to label your packaging and products and other requirements, there is a new sub-web site, <http://www.eps.or.kr>. This site includes high resolution graphics of the Korean recycling symbol required in the Separate Discharge Mark regulations. It also clearly explains which items must be labeled.

EPRS Direct Line at KORECO: +82 3 25601829

Korea Foam-styrene Recycling Association:
+82 2 761 0280 (*Some English is spoken, but we recommend using a Korean speaker.*)

Korea Packaging Association Inc (.Rm 503 Chun Rok B/d, 1351-3, Shin Gil-dong, Youngdeungpo-ku, Seoul, Korea. <http://www.kopa.or.kr/english>

Tel.+ 82-2-835-90415 *also apparently handles some package recycling for members.*

RLI has obtained a copy of the full text of the January law in Korean, and we will be translating some of it. Results will be available free to Global Password holders. Text of KORECO's new basic regulation is posted at www.raymond.com on pay-per-view.

China: Major changes in National Packaging Policy

China's law on environmental assessment went into effect on September 1, and according to Wu Bo, vice director of the State Environmental Protection Administration (SEPA), plastic packaging will be sharply curtailed to reduce "white pollution."

"In the past, the government encouraged the use of plastic package products output to boost the manufacturing industry. This has caused a nationwide disaster in terms of "white pollution," he said. "As such, the new National Packaging Policy will seek to decrease both the production and use of plastic packaging."

China's new National Packaging Policy will initially target industry's use of layers of clear plastic packaging, which is cited as "clearly unnecessary" according to the SEPA. A broader plan, including policies for other forms of plastic packaging (PS Foam, EPS, etc) will be developed over the next few months.

Another major change relates to Environmental Impact Assessment (EIA) reports which all manufacturers must submit by the end of 2003, and once every three years thereafter. In addition, EIA reports for new factories must conform to the local government's land utilization, urban engineering, communication, and natural resource exploration regulations.

Chinese Urged to Make Eco-Friendly Products

According to a report released by China's Ministry of Science and Technology, although China has made tremendous progress in the technology sector, there is an urgent need for more environmentally friendly products.

More than 600 experts from the Research Team of Technology Forecast and State Key Technology Selection contributed to the report.

It states that although manufacturers (both local and foreign) have attached great importance to communications technology, nothing much has been done to produce "green" products. For example, manufacturing of integrated circuits relies on obsolete technology resulting in low design adaptability, high pollutant emission and poor energy efficiency.

Although the Ministry of Science and Technology will not consider making the production of green products compulsory at this stage, they encourage manufacturers to contact them to learn more about them.

More Polluting Factories Closed in China

A total of 1046 polluting factories in Henan Province were shut down by the local State Environmental Protection Administration (SEPA) in July. The factories were mostly closed for operating illegally or being in violation of environmental standards, especially waste water and solid waste pollution standards set by the SEPA.

The factories will remain closed until they produce comprehensive Environmental Impact Assessment (EIA) plans showing methods to reduce waste water and solid waste pollution.

Shanghai to Spend 70 Billion Yuan on Environment

Shanghai's State Environmental Protection Agency (SSEPA) deputy chief, Zhang Quan, announced environmental protection plans for Shanghai at a recent ecological planning conference. The SSEPA is allowed to set aside 3% of its gross domestic product, amounting to 70 billion Yuan, on environmental protection plans.

Zhang Quan told conference participants that Shanghai, with a population of over 16 million, produces 4,400 tons of trash and sewage, and 6,500 tons of industrial waste daily. The 70 billion Yuan will fund over 300 environmental campaigns in the next seven years. There will also be stricter enforcement for industrial pollution. SSEPA hopes to achieve standards set by the World Health Organization for environmental indexes by the 2010 World Expo, to be held in Shanghai.

Shanghai Opens Huge Solar plant

China's largest solar battery factory will open in October and is expected to ease power shortage problems in Shanghai.

The Shanghai Solar Energy Technology Company invested 60 million yuan (about \$7.2 million) in the enterprise. The company expects the new factory to produce batteries with a capacity of 10 Megawatts per year, which would be about 50% of all the solar energy used in China. Solar powered lighting for streets and public gardens are widely used in Shanghai.

Several pilot projects will also be experimenting with using solar energy in Shanghai factories, and environmentally friendly solar-powered houses are also slated to be built in Shanghai this year. —*Ee Lin Wan*

Hong Kong Eyes Ewaste Regulation; Export Controls

Hong Kong is under pressure from Mainland China and international environmental groups to stop illegal ewaste exports, but the government contends that it's right on top of things.

The Environmental Protection Department (EPD) announced recently that it is contemplating various

producer responsibility schemes for electronics recycling.

As proof of success, a spokesman for the Environmental Protection Department pointed to the arrest of a ship master from Mainland China in August. The vessel contained more than 1,000 units of electronic waste collected in the Hong Kong area and bound for the mainland. The man was sentenced the next day to two months in prison.

A few days later, Greenpeace made its point about ewaste exports by presenting Hong Kong's Secretary of the Environment, Transportation and Works, Sarah Liao, with a sculpture made from electronic waste. Greenpeace maintains that Hong Kong generates more than two million units of ewaste annually, and that 80-90% of that was exported to China, Southeast Asia and Africa.

The government points to the permanent 20-hectare "Recovery Park" recycling facility in Tuen Mun now in the works, and \$100 million (HKD) earmarked for green and other local groups to organize community waste recovery projects, as evidence of progress. A pilot recycling program for computers and electric appliances began in January, and is expected to be the foundation for large scale recycling efforts.

Hong Kong has required permits to import and export hazardous wastes including CRTs and televisions, since 1996. From 1996 through 2002, there were 41 prosecutions for illegal movement of electronic waste with 37 convictions. This year, there have been 3 similar convictions, and more are expected.

An environmental spokesperson said Hong Kong is enforcing the prior notification and consent system required by the Basel Convention, and that no hazardous ewaste shipments have gone between Hong Kong and mainland China. China banned all imports of ewaste in August 2002, and Hong Kong and the Mainland forged an agreement last March to crackdown on illegal smuggling of ewaste. A conviction can carry a fine up to \$2,000 (HKD) and six months' imprisonment.

Hong Kong Testing Single-Stream Recycling

Hong Kong launched a major year-long pilot program last March that only requires consumers to separate waste into two categories - wet and dry. It is hoped that the more convenient system will encourage recycling. The program includes about 24,000 people and almost 8,000 households, and may eventually supplant the current 3-bin system.

"Dry waste" is defined as paper, metal cans, plastic bottles, floppy disks, batteries, glass bottles, old clothes, baskets, pens and shoes.

"Wet waste" is food waste and other contaminated materials such as tissue and diapers. Wet waste goes directly to landfill, and dry waste is delivered to a pilot waste separation facility for sorting. The program is also researching markets for recyclables including plastics and textiles.

Taiwan Slashes Plastic Bag Use

In the six months since Taiwan's plastic bag restrictions went into effect, the EPA says that consumption has fallen by 80%, and only 1.48% of businesses inspected were in violation.

The EPA is touting Taiwan's policy as "an international example" citing South Africa and Australia's recent regulations as being modeled after Taiwan's law. Ireland imposed the first restrictions on plastic shopping bags in March, 2002, Taiwan followed in July of that year.

Taiwan: Recycling Rates Show Increase

The Environmental Protection Agency (EPA) in Taiwan recently released its 2002 recycling statistics showing significant increases in the kg volume for some key fractions. The statistics were compiled by a third party chosen by EPA.

In packaging, aluminum beverage container recycling increased 25% over 2001, while glass container recycling is up almost 30%. Plastics recycling increased by almost 30% overall, with PET up by 11.53% and PP/PE up by 18%. PVC recycling showed a slight decrease.

The numbers indicate that the volume of batteries collected in 2002 grew by more than 64% over 2001; from 585,808 to 922,633 kg. Numbers for electronics recycling (including laptops, CPU's, monitors and printers) are relatively modest by comparison. The volume for these increased by 22%, with 1,495,086 kgs collected in 2002.

The only significant fractional decrease in volume recycled occurred with waste lubricant, which fell to 9,413,072 kg in 2002 from 12,328,261 in 2001.

Taiwan: "Dueling Surveys" Conflict Over Ecolabeling

Taiwan's Consumers' Foundation recently released survey results showing that 40% of Taiwanese were completely unaware of the country's Green Mark ecolabeling system, begun in 1992. The EPA objects to those numbers citing a survey of its own that says 90% of Taiwan's residents have heard of ecolabeling.

Though the government claims that there are more than 1,800 green label products available in Taiwan, the Foundation argues that such goods rarely appear on the market. The maintains that the Green Mark is found on appliances such as washing machines, air conditioners and refrigerators, but little else. Even when the labeling is present, it can be very hard to find because there is no standard for label placement.

The Foundation's survey was compiled from 1,213 consumer questionnaires completed by customers at 18 department stores and supermarkets in Taipei. Only 48.6% of respondents said they had purchased Green Mark products, and as already noted, 40% were not aware of the system.

However, 82.7% of those interviewed said they would pay more for green label products, and 61% thought paying as much as 10% more was acceptable to help the environment.

Details of the EPA's survey have not been released, but the Agency notes that Cabinet agencies and local governments are strongly encouraged to buy environmentally approved goods.

The agency mandates that 50% of administrative supply budgets go to purchase environmentally approved versions of 27 commonly used office products including computers, stationery and air conditioners.

According to EPA statistics released last April, Taiwan's government spent NT\$2.65 billion on ecolabelled products which represented 65.6% of the total for government supply budgets, exceeding the goal by almost 16%.

Taiwan Increases Composting

Taiwan plans to triple its production of compost from household food waste over the next few years - to 900 tons, compared with 300 tons produced in 2002.

Chushan's recycling program, begun in May, is regularly composting 20-30% of household waste. Officials estimate that composting programs can extend the lifespan of a landfill by about seven years.

The compost is used fertilizer, soil conditioner and pig fodder. Officials say that it only costs about 8cents to process 1kg of household waste. The composting project also appears to be raising the awareness level of Chusan's residents regarding recycling - which is up to 18.25% for June 2003, compared to only 1.24% during the same period last year.

THAILAND: E-Waste Legislation in Bangkok?

The Anti-Air Pollution and Environment Protection Foundation in Bangkok, headed by former Bangkok governor Bhichit Rattakul, is pushing Parliament to approve ewaste legislation. Rattakul noted at a recent press conference, that Thailand disposes of about ten million cell phones a year placing an economic burden on government.

Initially, retailers to takeback ewaste from customers. Rattakul is also proposing legislation similar to the **Waste from Electrical and Electronic Equipment regulation (WEEE)** in Europe, which places recycling responsibility on manufacturers and importers. In the meantime, the Thai government has signed a contract with the General Environmental Conservation Holdings (GENCO) to recycle the electronic waste collected by retailers. -*Ee Lin Wan*

Japan: Mandatory Electronics Recycling Creates New Markets

New markets are emerging due to Japan's mandatory electronic takeback system which goes into effect October 1. Both IBM and NEC have recently

registered “Refresh PC” brands to sell their respective recycled computers.

IBM has been selling about 1,000 computers a month. NEC, Corp., which leads Japan’s domestic market, has been buying used NEC brand PCs for refurbishing since July. Both companies ensure that all data is erased from the units before they are fully restored, and both companies warranty their products.

Estimates indicate that used computer sales comprise about one-tenth of the current Japanese market, but that figure is expected to rise sharply when the recycling regulations take effect. And while Japan’s sales of new computers continues to fall after reaching a peak of 12.1 million units in 2000, sales of used units are brisk.

Observers note that consumers have to pay ¥3,000 to ¥7,000 to cover manufacturer costs when they recycle, so selling them is a very attractive alternative. Softmap Co., which operates about 40 retail computer stores in Japan has started a franchise operation to retail recycled PCs, and plans to open a number of outlets in Japan’s major electronic districts.

NEC Sets Recycling Fees

NEC is the first company to announce the fees it will charge consumers for computer recycling. The company will charge ¥ 3,000 each for laptops, PC towers and liquid crystal displays, and ¥ 4,000 for CRTs, which are harder to recycle. The fees will apply only to computers sold before October 1 of this year when Japan’s mandatory recycling regulations take effect. The cost of recycling will be included in the retail price of units sold after that date. (Asahi Shimbun)

Japan: Sugar Power!!

Care for some “Photoelectrochemical bio-nano fuel cells with your coffee?” How about a sugar-powered computer that never needs a recharge? Or a pacemaker powered by the glucose in the patient’s own blood? These are just some of the possibilities of “sugar fuel cell” technology.

The Advanced Technology Research Lab division of Matsushita Electric Industrial Company, Ltd and Arizona State University are developing the technology. Inspired by photosynthesis in plants, experiments last fall showed that the electrical output of the cells was dramatically increased by using artificial chlorophyll as an electrode. The electrical current was only about 1% of that of a AA battery, but fully one-quarter of the energy recovery efficiency of living organisms.

Malaysia: Poor Public Awareness

The Malaysian government is hoping to instill a sense of civic responsibility in it’s citizens as the country’s existing landfills reach maximum capacity. Malaysia launched its “silver box” recycling program two years ago, but results have been very discouraging.

Many of the thousands of recycling bins throughout the country are used as garbage cans. A Housing and Local Government Ministry survey conducted last year

found that while 79% of respondents said they knew recycling was important, only 50% recycled on any level. But in another survey taken early this year, 100% of the respondents said that they were aware of recycling but did not practice it.

Malaysia currently recycles only 2% of its waste, and the country imports vast amounts of recycled paper and plastic for domestic consumption. The Ministry wants to increase the overall recycling rate to 22% by 2020. A household ‘pay-as-you-throw’ scheme is being considered as a partial solution.

Phillippines: New Recycling Plant

San Miguel Corp., Southeast Asia’s largest food and beverage firm, has just announced it will build a major recycling plant for its packaging materials in the Phillipines. The \$91 million project will be funded through a facility agreement with 11 banks headed by the state-owned Development Bank of the Phillipines, with Citibank as the facility agent.

San Miguel sells 90% of the beer bottles consumed in the Phillipines and dominates the soft drink, liquor and food sectors in its home market of Hong Kong and China. A spokesman for the company said the plant will produce environment friendly packaging materials for the local food and beverage industries.” (Reuters/ABC-CBNNews)

Australia Developing National Chemicals Policy

The Australian Environment Protection and Heritage Council (EPHC) has formed a working group chaired by the New South Wales Environmental Protection Agency, to develop a proposal for a national environmental risk management framework for chemicals.

The Working Group, appointed last May, was formed as a result of the findings of the National Chemicals Taskforce published as “Scoping paper - Towards Ecologically Sustainable Management of Chemicals in Australia.” The report concluded that though Australia has made significant progress in ecologically sound chemicals management, more work is needed.

The Working Group, chaired by NSW EPA, will confer with ministerial councils, communities, government agencies and industry to develop the proposal. No date has been set for the release of their findings. The Chemicals Taskforce scoping paper is available at <http://www.ephc.gov.au/news.html>

Australia Closing in on Plastic Bag Ban

In Australia, disposable plastic bags are fast becoming the symbol and the focus for all the environmental ills produced by a consumer society. Environmentalists decry their use, towns are declaring themselves “bag-free zones,” states are threatening

immediate bans, and the Australian national government is determined to clean things up.

Bowing to growing pressure, Australia's retailers agreed last December to voluntarily cut the number of disposable plastic bags within the next five years. They also agreed to reduce the use of the bags by 50% by the end of 2004. Last month, the proposed Voluntary Code was brought before the Environment Protection and Heritage Council (EPHC) for consideration.

As presented by the Australian Retailers' Association (ARA), the Code upholds the EPHC target of a 75% reduction in bag litter (not use) by the end of 2005, with a 25% reduction by the end of 2003, and a 50% reduction by the end of 2004.

It also sets a 15% recycling target of HDPE bags through in-store return, or a 30% target combining in-store and curbside recycling, by 2005.

Retailers also agreed to work with the plastics and recycling industries to phase out HDPE bags without recycled content as soon as possible, and to developing a massive consumer education program.

In addition, they offered to seek a 90% participation rate among the ARA's supermarket and chain membership while encouraging small retailers to adopt the code.

The EPHC agreed to accept the retailers' proposal providing that the Code include baseline data dealing with current bag usage and recycling, and a transparent auditing process including periodic reporting requirements.

The EPHC is also requiring the ARA to "mount an aggressive campaign to enlist the signatures of as many retailers as possible, especially in the small, independent sector," and to offer consumers a "fair market choice" between thin single-use bags and multiple use bags. The ARA is required to provide a revised Code incorporating these changes before the next EPHC meeting in October.

South Africa to Impose "Green Tax"

South Africa will soon impose a "green tax" on many common items in the hope that putting a value on trash will discourage dumping. The new legislation was approved by the last Cabinet and is expected to be heard in Parliament soon, according to press reports.

The legislation will also transfer the oversight of landfills from the Department of Water Affairs and Forestry to the Department of Environmental Affairs. Mandatory deposits will be placed on a variety of goods as yet to be determined, but a few will likely be tires, bottles, cans and plastic.

The legislation grew out of a ministerial workshop held in July, and the government's White Paper Policy on Integrated Pollution and Waste Management, and is part of a comprehensive new waste management plan currently under development.

Latin America ~

Mexico: New Law Implies Producer Responsibility

Mexico's Secretary for the Environment (Semarnat) is in the final stages of developing the regulations for Mexico's new waste disposal law, which will require companies that make batteries, electronic components, tires and motor oils to register with the government and develop a waste disposal plan.

The new law was passed by Congress last April to regulate a broad spectrum of waste, and should soon be open to debate from industry and the public. According to a Semarnat spokesperson, industrial leaders have expressed their willingness to comply with the new law.

The version of the law that was passed differed slightly from the original bill, which prohibited the burning of all toxic waste and promoted the use of alternative toxic waste treatment technologies. The present law will allow some burning of toxic wastes, and will create several toxic waste dumps within Mexican territory.

Municipalities will be responsible for non-hazardous waste, Mexico's 32 state governments will handle semi-dangerous waste, and the federal government will deal with toxic and hazardous waste.

According to analysts, the biggest challenge will be registration of many of the small and medium sized companies producing hazardous waste. Less than half of the 8 million metric tons of hazardous waste Mexico produces annually is registered and treated adequately. The remainder is produced by smaller companies that in many cases, cannot afford the cost of proper disposal. – *Elizabeth Johnson in Brazil*

Green Labeling Mandatory in 21 Countries



It's getting impossible to get by with putting only one label on an international product – South Korea, Taiwan, Japan, and even Poland now all have their own different green label requirements, according to a newly updated report, “**Green Labeling: Global Guide for Marketers in the New Millennium**” 2003 Edition, from Raymond Communications, College Park MD USA published this month.

For example, the report finds that about 15 European and Eastern European countries now have some sort of mandatory green label requirements, though most accept some version of the SPI code with chasing arrows.

However, Poland adopted regulations requiring use of a round arrow symbol for some “recyclable” packages that no one else uses – the symbol was proposed at the European Commission but abandoned five years ago.

South Korea now requires a totally different triangle, with the words “Separate, please” in Korean, while Japan requires a different set of symbols that include Japanese characters.

The report covers voluntary and mandatory green labeling regulations for the U.S. and 20 other countries. In the U.S., the report provides a comprehensive comparison of various green labeling guidelines, including ISO and ASTM definitions, with a complete history of the labeling issue.

Besides mandatory measures in Europe and Asia, it also summarizes all the major voluntary ecolabel programs, covering 22 countries.

The report provides analysis of some of the more complex issues, such as use of the Green Dot, and when and where green labels make sense.

The report finds that:

- Proposed amendments to the European Directive on Packaging & Packaging Waste would make the material coding mandatory for all packaging.
- The new European electronics waste directives will require new labeling on electronics for recycling.
- Companies that cannot take the European Green Dot off their package for Canada have to pay license fees to an Ontario trade association.
- New mercury restrictions passed in five U.S. states will require disclosures for mercury-added products, though each state differs on where the label must be located on the packaging.

New international standards, and European Union rules require all wood packaging to be treated and marked because of problems with insect infestations. The mark itself was only agreed to in 2003.

Japan, Taiwan, and South Korea all have different symbols.

In some cases, the report finds that ecolabel programs are not so voluntary if a company wants to sell to government. For example, the Taiwanese government now requires the Green Mark on any product with an approved criteria for government purchasing.

“Some of the criteria in Asia don't always make sense to North American exporters,” Raymond warns. “For example Taiwan's Green Mark program requires 80% recycled content in corrugated boxes. Packagers here say the standard is not practical, as this grade cannot properly hold heavier products.”

The updated report includes a bonus spreadsheet of global mandates for a quick reference.

The report is available from Raymond Communications, Information: 301-345-4237 circulation@raymond.com <http://www.raymond.com>

Take it Back! GOES WEST 2004

We are seeking ideas for invited papers at the next Take it Back! Conference, to be held first week of March 2004 in (or near) San Francisco, California. There will be pre-conference workshops on packaging and plastics, an international plenary, and a full day on electronics recycling policy and implementation issues.

We will need policy speakers from around the world, packaging and electronics recycling case histories. We will also invite presentations on new plastics recycling technologies. Please email michele@raymond.com with your ideas!

Recycling Laws International is published bi-monthly by Raymond Communications, Inc., 5111 Berwyn Rd. Ste 115 College Park, MD 20740 301/345-4237; Fax 301/345-4768; <http://www.raymond.com>; Email: michele@raymond.com. Michele Raymond Publisher; Jennifer Hollon, Editor; Correspondents: Europe: Jackie Oliver; UK, Asia: Ee Lin Wan Brazil: Elizabeth Johnson Circulation: Sue Ivory Price: \$467/yr, includes FREE email headlines and access to news and archive online. Raymond Communications also publishes **STATE RECYCLING LAWS UPDATE**, provides custom research. All material copyright 2003 Raymond Communications, Inc. All rights reserved; no permission to copy or put in information retrieval system. Licenses are available. *Country Pages are de-coupled from this service. To receive the 2003 Country Pages you must order them, or renew with the Looseleaf Service at \$630.*