

910201

FINAL REPORT

GOVERNOR'S SELECT COMMITTEE ON PACKAGING AND THE ENVIRONMENT

(SCOPE)

**State of Minnesota
December 18, 1990**

I. INTRODUCTION

In November 1989 Governor Rudy Perpich appointed twenty-nine Minnesotans to serve on the Select Committee on Packaging and the Environment (SCOPE). We came from city and county governments; the waste management industry; the food processing industry; trade unions; glass, plastic, paper and can manufacturing; public-interest and environmental groups; the legislative and executive branches; and the retail sector.

We first met as a committee on Dec. 6, 1989, and began with the Governor's charge:

"The Committee shall recommend a strategy to promote environmentally sound packaging in Minnesota. The goals of the strategy shall be environmental protection and resource conservation; to be achieved through waste reduction and recyclability, consumer education, and a reduction in the toxic components of packaging materials."

We reported our progress to the Governor and the Legislature in February. In our progress report, we agreed to work toward a coherent, statewide plan to achieve more environmentally sound packaging. We agreed that this would be a worthy replacement for local ordinances directed at package recycling. We agreed that if we assembled such a plan we would recommend the pre-emption of such ordinances. Our plan follows.

II. PREAMBLE

The last two years have seen a new energy in the recycling and redesign of packaging. We think this environmental awareness is a major step forward. An example is the recent cooperation from a number of producers in removing toxic metals from packaging materials. We feel that the time is right to organize the effort now underway in many sectors, and direct it toward specific goals. The best strategy is one that forms a partnership between business, government at all levels, and concerned consumers.

We think the "partnership" term is apt, because recycling is breaking down some of the traditional barriers between government, citizens and business. For example, local governments that collect recyclable materials find themselves making the same decisions that businesses face every day: what market should we get into and how do costs balance against returns? This new partnership can make fundamental changes in the design, purchasing and disposal of packaging. It can achieve significant reduction and reuse of packaging, which reflect the highest priorities of Minnesota's waste management hierarchy. Specifically, we suggest that the forces of change be directed at meeting three goals:

Goal 1: Achieve a significant net reduction in the amount of packaging materials discarded into the waste stream. This can be achieved with "source reduction" -- meaning reducing the use of packaging

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materials at the manufacturing end -- and with more recycling. We suggest a goal of reducing packaging discards by 25 percent between 1991 and 1994, per person. However, we add that this percentage is not a scientifically derived number.

Goal 2: Maximize recovery of materials that contribute more than an insignificant quantity to the waste and recycling streams. This will mean raising our collection efforts, meanwhile pursuing opportunities to develop markets for all materials.

Goal 3: Ensure that any packaging that does reach the waste stream presents no environmental problem. This will assist in the siting of new disposal facilities -- composting, incineration and land disposal -- when they are needed.

While we expect at this time that voluntary action may get the job done without any persuasion from the state, no one can predict the performance of an evolving system with certainty. Therefore, the state should prepare a contingency plan, maturing in 1994, that is capable of accelerating change in areas where environmental progress proves inadequate. At regular intervals over the coming years the Legislature should examine even more ambitious goals, to be implemented when appropriate.

III. CONSERVATION OF MATERIALS

Principle 1: We propose that this new partnership of business, consumers and government commit to a cooperative program promising source reduction and maximum recovery of packaging materials that contribute more than an insignificant quantity to the waste and recycling streams.

A. Targets and Measurement

1. *Set 1994 goal for overall reduction in disposed packaging:* The state should set a goal of reducing the amount of discarded packaging by 25 percent between 1991 and 1994, per capita.
2. *Recoverability threshold:* By September 1, 1991, and each year thereafter, the responsible state agency, after consultation with interested parties, should identify the threshold of significance by which it will be determined whether a particular material is subject to recovery targets.
3. *Set 1994 targets by material:* We recommend that the state adopt ambitious but realistic recovery targets now for every packaging material except those that constitute an insignificant portion of the waste and recycling streams. These targets should reflect current progress as well as the effect of recycling on material quality. The responsible state agency should consult with interested groups and packaging representatives in setting these targets within six months after the enactment of authorizing

legislation in 1991. Reflecting our goal of reducing discarded packaging by one-quarter, we suggest the following guideline in setting targets: (a) for each material, estimate the current recycling recovery percentage; (b) take one-fourth of the unrecovered percentage; (c) add the current recovery rate and one-fourth of the unrecovered percentage; and (d) the sum is the 1994 target. To illustrate: we expect that corrugated containers would have a 1994 recovery target of 62 percent, and PET containers would have a 1994 recovery target of 29 percent. As to paper materials, we suggest that any given paper material will be in compliance if its individual target is met, or if all paper packaging meets an aggregate goal.

4. *Credit for source reduction:* Source reduction within a given package should count as progress toward these targets. What constitutes true source reduction should be based on a survey of the relevant industry, for the most efficient use of packaging in delivering a given product in a comparable market. Where evaluators need a baseline year for their comparisons, we suggest 1985.

5. *Targets for plastic:* Among plastic packaging, only rigid containers should be subject to 1994 recovery targets. Our rationale is that the 1989 municipal ordinances relating to packaging recyclability made a similar distinction between rigid and non-rigid plastics.

6. *Measure progress yearly:* The state should set up a credible measurement system now that can monitor progress toward the recovery goals every year. We caution that this may require research and innovation, because no conventional measurement method that we have seen appears fully satisfactory. We are not convinced that accurate characterization of the waste stream by specific packaging materials will ever be possible.

7. *Pursue environmentally appropriate disposal method:* Packaging materials not separated for recycling should be routed to the disposal method posing the least burden on the environment. Food-contaminated paper, for example, should be routed to composting and waste-to-energy incineration rather than landfilling. Unrecyclable glass, on the other hand, should be routed to landfills rather than composting sites or incinerators. Appropriate routing will minimize the environmental impacts of our existing facilities.

B. Consumer Behavior Change

Begin with buying habits. Broad and effective public education is essential to harnessing the apparent willingness of consumers to seek out environmentally sound packaging and buy products using these packages. Industry can and should support this effort. Focused consumer demand is important because it will support producers' efforts to be environmentally responsible. The other half of consumers' behavior is their disposal habits. To reform these habits, the state needs to provide economic incentives sending the clear message to

consumers that package reduction and recycling are preferable to disposal.

8. *Weight or volume-based fees:* The state should require that local governments implement volume or weight-based waste fees -- at the local government's choice -- by a date certain. The fees must be arranged in such a way that waste generators pay a distinct and visible additional cost for disposing additional quantities of waste. Also, there must be a significant financial incentive that encourages recycling over disposal. It is preferable that recycling costs be included in service billings, because this would provide an incentive to seek out source-reduced packaging.

9. *Environmental labeling:* By July 1, 1992, the packaging advisory council (see Finding 17, below) should report on progress toward a uniform, national system for accurate environmental labeling. We believe that such a system is likely by this date. But if an effective program is not in existence or scheduled for implementation, Minnesota should proceed with its own voluntary or mandatory standards for labeling, including rigorous definitions for key terms.

10. *Public education:* Current public education programs on solid waste should be accelerated to accomplish the following.

(a) The state and industry should help build consumer demand for products in recycled-content and source-reduced packaging by supporting public education programs on environmentally sound packaging; and

(b) The state and industry should educate citizens on the importance of managing their disposed packaging waste properly. This should include information and perhaps public displays about the consequences of burning various packaging materials at low temperatures, and about the comparative environmental consequences of source reduction, recycling and disposal.

11. *"Leave-behind" option:* The state's public education effort should inform consumers that they have the right to remove unwanted packaging at the point of sale and leave it with the seller. We call this the "leave-behind" option. The state should caution that this option must be tempered with common sense, and due regard for sanitation and safety hazards.

12. *Award program:* The state should create a public award program to recognize packagers, sellers and recyclers who are doing their part to make consumer and distribution packaging more environmentally sound.

C. Government Collection

Because we are endorsing a system built around recovering substantially more packaging materials for recycling, a significantly greater collection effort is critical to our plan. We realize that counties and cities cannot afford to collect any and all materials; some materials will have no market and other materials may be so small in volume as to make collection impractical. Our intent is that local governments should offer collection opportunities for all materials that constitute more than an insignificant amount of the waste and recycling stream, barring extenuating circumstances based on local conditions.

13. Required collection opportunities: The state should require counties to provide collection opportunities for all packaging materials that constitute more than an insignificant amount of the waste and recycling streams.

14. Exemptions from collection requirements: Counties and their communities should be able to request exemptions from state's collection requirements, for specific packaging materials, based on local conditions. An exemption is appropriate where the local avoided collection and disposal cost is less than the local net recycling cost for that material. The state should review these exemptions and require that they be renewed yearly. We caution that this system of exemptions will require economic research over the next two years, to develop accurate measures for figuring local costs.

15. Funding for collection: We doubt that state and local governments have enough money to support the significantly larger recycling effort indicated by our report. By proposing a means by which products with toxic contents can begin to pay their special handling costs (see Finding 21), it is our belief that revenues from this fee will free up state and local funds now going to pay costs imposed by toxics in the wastestream. After toxic materials begin to pay their own way, it is essential that policymakers allocate this newly-released money to waste reduction and recycling, rather than treat it as a source of additional general revenue.

D. Business Sector

We expect that changes in consumer demand and increases in collection will bring significant progress toward reduction and recovery of packaging materials. While hoping for the best, however, we should make arrangements for a scenario in which performance falls below our expectations. In case the market at large needs a clearer signal by 1994, the state should pass the essentials of a packaging-material fee system now, meanwhile working out the details with advice and assistance from recyclers, citizen groups and business.

The Legislature should authorize the system in 1991, but set the fee scales at zero initially. If all packaging materials meet their recovery goals, the responsible agency will never need to activate any fees. The

purpose of the fees, if activated, would be to persuade packagers and packaging material suppliers to recover more material; or to persuade packagers to shift away from materials that are not meeting reasonable recovery rates, or that are producing significant environmental burdens when disposed. In short, the purpose of fees is to encourage environmental responsibility, and not to raise revenue. Therefore it is important that when a material meets its recovery goal, the fee applying to that material must be removed.

16. *Establish packaging-material fees:* We recommend that the Legislature establish a framework of packaging-material fees, set several years in the future, that will be available if any packaging materials fall short of their recovery targets at the evaluation date of 1994, or if some packaging when disposed is producing significant environmental burdens.

The details of this fee should be worked out in state agency rules, aided by regular input from a packaging advisory council (see Finding 17). The advisory council also would report on the accuracy and fairness of recovery targets, based on the latest information. The designated agency's rules should be in place by the end of 1993. In outline, the legislation should implement a fee system that would:

- (a) Apply to packaging materials that
 - (1) fell significantly short of reasonable recovery targets (the "low recovery" fee); or
 - (2) are producing significant environmental consequences in the disposal stream (the "environmental burden" fee);
- (b) Suspend any of the "low-recovery" fee as to packaging material types that are an insignificant portion of the waste stream;
- (c) Give products complete or partial credit toward payment of the "low-recovery" fee, based on any of the following factors:
 - (1) significant source reduction achieved;
 - (2) reused at least five times in the distribution system;
 - (3) recycled content;
 - (4) the progress those materials have made toward their recovery targets;
 - (5) packaging laws or regulations pertaining to specific products (e.g., pharmaceuticals)

that prevent or impede recovery; or

(6) objective evidence that no commercially feasible substitute material would offer any environmental advantage;

(d) Be levied according to the weight of the noncomplying materials used in products' packages, if possible;

(e) Permit fees to go up substantially in phases if monitoring every two years indicates that the initial fees are having no major effect on raising recovery rates or reducing environmental burdens; and

(f) Apply as high up the production and distribution chain as is practical, making packagers and/or their material suppliers responsible for paying the fee.

17. Create a packaging advisory council: In 1991, the state should create an advisory council with membership from business, citizen groups, solid waste managers, and producers. The council will meet regularly to make findings and recommendations to the responsible state agency, but its reports will have no binding force. This council will:

(a) Have the opportunity to advise during the rulemaking process on the most practical implementation of the fee system above. Our intent is that the system, if ever needed, should be as responsive, fair and effective as possible. The advisory council should be alert to unintended consequences of public policy in this area, such as exemptions that in practice would encourage producers to shift into packaging materials classified as insubstantial portions of the waste stream, because these are unregulated;

(b) Assess performance in 1993 and 1994 to compare initial targets against experience gained following the 1991 legislation. For each packaging material, the advisory council will report to the responsible state agency as to recovery performance, targets, waste composition and environmental consequences of disposal;

(c) Review progress toward environmentally sound packaging on an annual basis thereafter;

(d) Report by July 1, 1992, on whether an effective, nationwide environmental labeling program is in place or near implementation (see Finding 9); and

- (e) Research, and report by July 1, 1994, on the full range of public policies that might encourage source reduction.

IV. TOXICS IN THE WASTE AND RECYCLING STREAMS

Principle 2: *No packaging that is composted, incinerated or landfilled should pollute the environment.* The first source of pollution is toxic metals and compounds used in packaging materials' manufacture. The second source is chemical byproducts caused by disposing of certain packaging materials in a certain way, such as by incineration. The third source is hazardous compounds contained in products that are recycled or discarded.

18. *Toxic metals in packaging materials:* The state should enact legislation, similar to that enacted in other states and drafted by the Source Reduction Council of the Coalition of Northeastern Governors (CONEG), to place strict limits on four priority toxic metals in packaging. These are lead, cadmium, mercury and hexavalent chromium. However, no industry should be subject to penalties for presence of these metals above permitted levels in necessary packaging where it can show that a more environmentally safe substitute is lacking.

19. *Pigments in trash bags:* The state should prohibit the sale of plastic garbage disposal bags in which pigments have been intentionally added to the virgin or recycled resin. These pigments serve no public purpose, but do interfere with enforcing current disposal prohibitions on certain materials, such as waste oil. This change would apply only to mixed-waste disposal bags, and therefore not to bags intended for hazardous materials or medical waste. Printing on bags, such as for communities with metered-bag systems, would be permitted.

20. *Label problem materials:* Because citizens should be aware of the toxic consequences of the packaged products they buy, the state should proceed with its existing authority by funding and implementing a shelf-based labeling system for problem materials.

21. *Products with environmental priority materials:* The consensus of our committee members is that products containing "environmental priority materials" (EPMs) are a problem that must be faced promptly. (For a definition, see section (a), below). In 1991 the Legislature should authorize a fee on these products. All these products should be registered, and a fee collected in the form of a registration payment. The fee should be on manufactured products intended for ultimate use or consumption in Minnesota, with the exception of products that have a dedicated industrial disposal system. This subject was a controversial one for the committee, and an explanatory note follows.

- (a) *Identification of products covered:* The law should be written to cover products into which "environmental priority" compounds or metals have been deliberately introduced. By

"environmental priority," we mean hazardous substances (as defined by Minn. Stat. ch. 115B.02, subd. 8) that have been detected in (1) leachate from at least 50 percent of those Minnesota MSW land disposal facilities that collect leachate, or (2) ash from at least 50 percent of MSW incinerator facilities in Minnesota. The EPM list should be updated each year following certification by the Minnesota Pollution Control Agency as to all the hazardous substances that exceeded the above threshold during the preceding year. This list also should include the metals identified under the CONEG model legislation on heavy metals in packaging. In 1991, the responsible state agency should convene a technical group that will begin identifying additional hazardous substances found in products, and which are more likely than not to cause environmental problems when disposed or recycled. The technical group should report its findings to the responsible agency by October 1, 1993. At this point, the agency shall report to the Legislature concerning which compounds should be added to the EPM list.

(b) *Administration of fee:* We suggest that the fairest system would be one in which the fee is based on the amount of EPM used in the product, and the volume of product sold. The legislation should set up a system by which producers can receive an expedited exemption from the fee, upon a showing that they have removed one or more EPMs from their products.

The legislative authorization should be complete enough that any necessary rulemaking can be completed within one year. Products sold as food or medications would be exempt from any of this fee.

The Legislature should set the fee to cover the estimated additional costs imposed by handling products with EPMs in the waste and recycling streams, such as remediation of MSW disposal sites, household hazardous waste collection and handling, costs of problem materials shelf labeling, health-related research and the increased costs of ash disposal attributable to EPMs. This list is not in order of priority; we discussed at length whether the fee should help pay for landfill remediation and whether it should be capped.

We recognize that this recommendation will remain controversial; indeed, we place it among our consensus findings despite objections from some members. They assert that recommendations as to product residues in discarded or recycled packages are outside the Governor's charge to SCOPE; and that new policies covering chemicals in products should await a group appointed for this particular purpose, and including chemical industry membership. We acknowledge the sensitivity of the membership issue, but nonetheless we reached a consensus that packaging policy cannot be complete without attention to hazardous product contents.

Some members on SCOPE also objected to using statutory lists of hazardous substances as one element in identifying chemicals subject to a special fee. Those members said that this implied a level of toxicity for products containing these chemicals that no one has substantiated scientifically. They proposed, as an

alternative, creating a technical review panel to advise the responsible agency on hazardous or toxic substances and on the rulemaking process for placing a registration fee on each.

These members did agree with the proposition that toxic and hazardous materials impose genuine costs that must be met. However, they said that a fee on toxic and hazardous products, if created, should raise no more than to pay the costs of diverting those containers from the waste and recycling streams. Where landfill cleanup costs must be met, they preferred to rely on general revenue measures, such as increases in the retail sales tax, corporate taxes or the SCORE tax on garbage collection.

V. RESEARCH

We discovered several subjects in which concerns have been raised about packaging and the environment, but no clear scientific consensus appears. In other subjects, recycling technologies and waste stream composition are changing and periodic reviews are needed. Further research will be required in these areas. Wherever possible, research should be managed through compacts between states and the private sector. We offer no recommendation on where the funds necessary for this research will come from.

22. Environmental studies: Minnesota should join with other states in agreeing on methodology and disclosure procedures for "life-cycle assessments" (LCAs) carried out in the future. This will allow policymakers to determine which environmental studies should be given weight.

23. Recycling worker safety: The state should commission research on the health and safety of workers in sorting and processing operations related to recycling. This research would characterize the occupational health environment at a list of representative locations.

24. Economic research: The state should commission or augment the following economic research: (1) toward methods to determine the true costs of disposal and recycling various packaging, and methods to internalize those costs; (2) for specified materials, to identify innovative collection systems and processing, with the goal of increasing the types and volumes of packaging material collected; (3) to provide economic guidelines that will indicate when a community should add collection of a material; and (4) toward methods to compensate for existing subsidies that encourage the use of virgin materials.

VI. STATEWIDE PLAN

25. Pre-empt local ordinances in favor of a statewide plan: If the state adopts a plan with the above essential elements, we recommend that the state pre-empt local packaging and labeling ordinances related to recycling.

While supporting this renewal of pre-emption, our support is predicated on the presumption that discarded packaging in Minnesota will achieve 25 percent overall reduction, per capita, by the end of 1994. If this fails, we believe that Minnesota policymakers should take a fresh look at packaging policy. By January 1, 1995, the responsible state agency should report to the Legislature on statewide progress toward SCOPE's goals.

This consensus point also saw considerable discussion and controversy. Some members said they were willing to ask local governments to suspend action on their packaging ordinances, but said that state pre-emption of those ordinances should wait until after a statewide plan showed real progress toward recycling and reduction. They said that these ordinances were the motivating force behind SCOPE's work, and therefore should be held in reserve if our proposal is not adopted and acted upon as rapidly as possible by all sectors: business, local governments and consumers.

VII. CONCLUSIONS

We have described how Minnesota could undertake a long-term effort to keep substantial amounts of packaging out of landfills and incinerators, and how it can take steps to make the flow of materials reaching the disposal system safer for the environment.

As with all worthy efforts, achieving substantial recovery goals needs commitment on all sides. No single sector can do the whole job. Food packagers cannot order consumers to put their soup cans out for recycling; consumers cannot put their cans out for recycling if no one collects them; and governments and businesses that collect cans must have someone willing to buy steel for recycling.

We believe that this effort is coming together. We endorse a cooperative plan, aimed at common goals and timed to achieve substantial results by 1994. We offer our plan to the people of Minnesota and to the governments and businesses who serve them.

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