

THE WHITE HOUSE

WASHINGTON

September 24, 1993

MEMORANDUM FOR CAROL RASCO

FROM: Brian~~o~~

SUBJECT: Draft Executive Order on Federal Recycling,
Acquisition and Use of Environmentally Preferable
Products and Services

As you are aware, an early draft of the above referenced Executive Order ("EO") was leaked and has generated considerable press coverage and correspondence from industry, private individuals, cities, States and environmental groups.

Background

In his Earth Day speech the President announced his intention to issue an executive order requiring federal agencies to do more to buy recycled products. The EO at issue satisfies the President's promise and would increase recycling, reduce municipal waste and encourage the development of environmental technologies and create jobs.

The present controversy between industry and the environmentalists concerns whether to include procurement provisions on the following issues: (1) articulating goals for the purchase of Total-Chlorine-Free (TCF) paper, and; (2) recycled content standards for printing and writing paper.

Total-Chlorine Free Paper

Chlorine is used in the paper manufacturing process to brighten pulps, but contributes significantly to the toxic waste stream generated by that production process. Consequently, environmentalists are opposed to the use of chlorine and advocate including TCF paper in the Executive Order. Industry strenuously objects to the articulation of goals for TCF paper.¹ After some investigation, it is clear that TCF production is not currently feasible (EPA Administrator Browner has made statements to this effect). Furthermore, EPA is in the process of developing a Rule which conflicts with the EO if it contains TCF standards. Thus, The TCF provision has been removed from the EO.

¹ When I met with representatives of the paper industry they stated that this was the most critical provision in the draft order.

Neither industry nor the environmentalists are aware that this decision has been made.

50% Recycled content v. 15% Post-consumer standard

The EO increases the standard that would apply to all printing and writing papers purchased by the Federal government.² The EO replaces the existing 50% **total recycled content** standard with a 15% **post-consumer recovered materials** standard--the standard would escalate to 25% in 1999.

As the President intended, the 15% post-consumer standard would spur investment in equipment necessary for post-consumer paper and create a market for municipalities to sell their landfill waste paper. Alternatively, to proceed with recycling that includes converting scrap and overissue material will not alleviate the landfill problem, will perpetuate a false perception about recycling successes, and will stifle investments in the small companies that have already invested in de-inking technology necessary to process post consumer paper.

Economic Impact on Industry

Increasing the standard to 15% **post-consumer** will not have a negative effect on the paper industry because it is a voluntary standard. Only those mills interested in government business will need to comply. The federal government's market share is only 2-3%.

Conclusion and Recommendation

Increasing the standard to 15% **post-consumer** would increase the recycling of paper products, reduce incineration and landfill disposal techniques and foster new environmental technologies. For these reasons and because reference to TCF is not included in the EO (industry's most pressing concern), I recommend that DPC endorse the with its present 15% post-consumer standard.

There is a meeting scheduled for Monday during which time representatives from industry and the environmental groups will for the last time brief interested WH staff on these issues and answer related questions. Attached is a more comprehensive executive summary for your review. I am available to discuss this with you at your convenience.

² It is important to keep in mind that there are two types of recycled material at issue: **recycled content** includes manufacturing scraps, over issue materials and other materials never used or discarded by customers (e.g. sawdust); and **post-consumer** waste paper which is waste paper that has passed through the consumer and is later discarded in landfills.

EXECUTIVE ORDER

FEDERAL ACQUISITION, RECYCLING AND WASTE PREVENTION

Briefing Documents

Recycled Paper Content Standards
Total-Chlorine-Free Paper
Guideline Process

August 18, 1993

RECYCLED PAPER CONTENT STANDARDS

I. SUMMARY

Executive Order Provisions

- o The Executive Order establishes recycled content standards that apply to printing and writing papers purchased by the Federal government and requires that Federal agencies purchase recycled printing and writing papers that meet these standards.
 - For commodity grade papers (e.g., photocopy and computer papers), the Order replaces the existing 50 % total recycled content standard established by EPA in 1988 with a 15 % postconsumer recovered materials content standard that would escalate to 25 % in 1999.
 - For other uncoated printing and writing papers (e.g., book, writing, and cotton fiber papers), the Order retains the 50 % total recycled content standard and adds that 15 % of the content be postconsumer materials. This postconsumer percentage escalates to 25 % in 1999.
- o In addition, the Order directs agencies to implement waste prevention techniques. Therefore, if recycled printing and writing papers cost more than comparable virgin papers, their paper expenditures will not exceed typical annual spending levels.
 - Provisions are included that allow agencies to exceed typical spending levels for good cause.

Problems Being Addressed/Benefits Expected

- o EPA's existing 50 % total recycled content standard for printing and writing papers makes it impossible for mills that make commodity grade papers (e.g., photocopy and computer papers) on large, fast paper machines to produce recycled paper economically. The Executive Order eliminates the 50 % total recycled content standard, enabling the large mills, which represent about 70 % of industry capacity, to produce recycled commodity grade papers.
- o There is insufficient demand for paper that is being recovered from the municipal solid waste stream by local governments, often as a result of State mandates. Through the purchasing power of the Federal government, the Executive Order uses the existing marketplace to encourage industry to invest in equipment to produce recycled paper.

- o The Federal government's existing recycled content standards for printing and writing papers are being ignored in favor of individual State standards because they do not specify postconsumer content. The Executive Order will establish recycled content standards that will be adopted by State and local governments and by the private sector. Widespread adoption of these standards will make it easier for industry to plan for the future and will lead to lower costs for recycled paper.

Technical Feasibility

- o There is a large supply of postconsumer materials that can be used to make printing and writing papers that meet the content standards contained in the Order.
- o Industry can use existing technology to produce printing and writing papers that meet the content standards contained in the Order. Additionally, there is ample capacity to meet the Federal government's demand for such papers.
 - Two large commodity grade mills have already invested in on-site equipment that will process postconsumer recovered materials into pulp that they will use to make recycled printing and writing papers. Therefore, no new investments would be needed for the government to purchase papers that meet the recycled content standards contained in the Executive Order.
 - Other producers of printing and writing papers may choose to make similar investments or purchase deinked pulp made by others to produce paper that meets the content standards contained in the Executive Order.

Impact on Federal Budget

- o There should be no increased cost to the Federal government as a result of the recycled paper provisions of the Executive Order.
 - The Order directs agencies to implement waste prevention techniques. Therefore, if recycled printing and writing papers cost more than comparable virgin papers, their paper expenditures will not exceed typical annual spending levels.
 - In fact, there is the potential that significant savings will result from office paper reduction programs begun as a result of this Order.

II. BACKGROUND

Statutory Requirement

- o Section 6002 of RCRA requires that Federal agencies develop affirmative procurement programs that give a preference to the purchase of products that contain recovered materials and mandates that EPA develop guidelines for use by the agencies in fulfilling their obligation.
 - In the case of paper, the agencies are to maximize the postconsumer recovered material content of the paper products that they purchase, provided that the paper is available at a reasonable price.
 - The guidelines are not mandatory and do not extend beyond the Federal government and its contractors and grantees. Thus, paper companies are not required to make products that meet the guidelines. However, it is our hope that the government's decision to "buy recycled" will encourage the private sector to do the same.

EPA Paper Procurement Guideline

- o EPA issued the paper procurement guideline in 1988.
 - The guideline recommended postconsumer content standards for most categories of paper (e.g., tissue, newsprint, paperboard).
 - However, for printing and writing papers, the guideline recommended a standard of 50 % total recycled content because, at the time the guideline was issued, insufficient quantities of printing and writing papers containing postconsumer recovered materials were being made to meet the government's needs.
- o Subsequent to EPA issuing the paper guideline, all of the states established their own "buy recycled" programs. Shortly after the EPA guideline was issued, printing and writing papers containing postconsumer recovered materials were becoming available in the market place.
 - In addition to the 50 % total recycled content, 26 states require that printing and writing papers contain 10 % postconsumer recovered materials.
- o The end result is that the current Federal content standard is being ignored and the "real" standard for recycled printing and writing papers has become the states' 50/10 standard.

- o Based on conversations with State and local government officials, representatives of environmental groups, and private sector purchasers, we expect that the Executive Order's 15 % postconsumer content standard, which escalates to 25 % in 1999, will replace the 50/10 standard for commodity grade printing and writing papers.

Government Purchasing

- o The Federal government has been successful in purchasing many kinds of recycled paper products, such as newsprint, towels, tissue, and high quality printing and writing papers.
- o However, less than five percent of Federal purchases of lower quality, commodity grade printing and writing papers (e.g., photocopy and computer papers), the highest volume printing and writing papers that we buy, contain recovered materials.
 - This is because only a few agencies have been willing to pay the 25 to 33 % price differential that now exists between recycled photocopy and computer papers (i.e., those that meet the 50/10 standard) and comparable virgin products.

The Problem

- o Recycled printing and writing papers, including commodity grade printing and writing papers (e.g., photocopy and computer paper), are now being made on small to medium sized paper machines.
- o They are not being made at mills with large, fast paper machines where paper can be made at a lower cost because of economies of scale.
 - This is because a 50 % content standard, whether pre- or postconsumer, is a barrier for the large mills.
 - To meet a 50 % standard would require a mill to close down one-half of its existing pulping operation and purchase an equivalent amount of pulp made at a deinking mill from recovered paper. This would increase its production costs by about 33 %.
- o For paper recycling to flourish, it will be necessary for these large mills, which represent about 70% of industry capacity, to use recovered paper in addition to virgin materials.

- o Unless construction has already started, as is the case at a couple of commodity grade mills, it will be impossible in the near term for the large mills to install the deinking equipment necessary to allow them to introduce recovered paper into their papermaking processes.
- o They can, however, purchase deinked market pulp from other mills and use it to make paper that contains postconsumer recovered materials.
- o In the short run, it will cost these large mills more to produce recycled paper than to continue to use virgin raw materials. This is because deinked market pulp will cost them more than it costs them to make their own pulp from virgin materials. We estimate that incremental production costs will increase as the amount of recycled content increases, as shown below:

10 % Postconsumer Content:	5 to 8 %
15 % Postconsumer Content:	8 to 12 %

- o In the near term, if companies choose to pass these increased costs on to their customers, the cost of recycled commodity grade papers will be higher than equivalent virgin papers.
- o Over the long term, as companies make the decision to build their own deinking plants, their costs will decrease because they can make deinked pulp at a lower cost than they must pay to have someone make it for them.
 - Thus, over the long term, we expect that the cost of recycled commodity grade papers will approach the cost of virgin commodity grade papers even though the total recycled content will be higher (i.e., 25 %).

The Solution

- o The Executive Order establishes two categories of printing and writing paper: commodity grades (e.g., photocopy and computer paper) and all other uncoated printing and writing grades:
 - For commodity grades, the Order eliminates EPA's existing 50 % total recycled content standard and replaces it with a 15 % postconsumer standard that would escalate to 25 % in the year 1999.
 - The economics dictate that, for mills with large, fast paper machines to begin using postconsumer recovered materials, a relatively low level of these materials (e.g., 15 %) must be used initially since, in the short term, most will have to purchase deinked pulp.

- The large mills cannot economically meet higher content standards (e.g., 25 %) without making capital investments in deinking equipment. These investments are most economically made at mills that are increasing production capacity or that are retiring old, worn out equipment.
- Escalating to the higher 25 % level in the year 1999 is consistent with the industry's 5 year investment cycle.
- For all other grades, the Order retains the 50 % total recycled content and adds a 15 % postconsumer materials content standard that would increase to 25 % in the year 1999.
 - These papers are now being made at these, and higher, levels.
 - This standard would ensure a market for the small, recycling mills.

Benefits

- o The approach taken in the Executive Order meets the statutory mandate of maximizing the postconsumer recovered material content of paper purchased by the Federal government.
- o The postconsumer content standards contained in the Order will ensure increased use of materials being collected in office paper recycling programs administered by local governments.
- o The elimination of the 50 % total recycled content standard for commodity grade printing and writing papers allows the large mills to produce recycled commodity grade paper economically and provides the incentive for them to do so. This, in turn, makes it more likely that the Federal government, State and local governments, and the private sector will be able to dramatically increase their purchase of recycled commodity grade printing and writing papers.
- o The Executive Order establishes a separate category for the grades of printing and writing papers (e.g., book, writing, and cotton fiber papers) that are typically made at small mills, guaranteeing that they can continue to do business with the Federal government.
- o The approach will receive support from state and local government officials, who strongly advocate postconsumer content standards.
 - Thus, the standard is likely to be adopted by state and local government purchasing officials, making it easier for industry to market recycled paper.

Impact On Industry

- o The 15 % postconsumer content standard is technically achievable and there is plenty of capacity for industry to make paper at the 15 % level.
 - The Federal government purchases less than 2 % of the printing and writing paper produced in the U.S.
 - Plenty of postconsumer recovered materials are available for use in making printing and writing papers.
 - Of the over 2.5 million tons of office paper collected per year, less than 3 % would be required to meet the Federal government's demand for printing and writing papers that contain 15 % postconsumer recovered materials.
 - By the end of 1994, there will be over 25 times as much deinked market pulp available than is required to meet the Federal government's demand for printing and writing papers that contain 15 % postconsumer recovered materials and 15 times as much as would be needed at the 25 % level.
- o Because there is sufficient deinked market pulp capacity available to meet the Federal government's demand for recycled printing and writing papers, both at the 15 % and 25 % levels, there is no need for industry to make any new capital investments.
 - Additionally, we know of two large commodity grade mills that are scheduled to bring new deinking equipment on line in mid-1995 or earlier that is capable of supplying four times the Federal government's demand for commodity grade printing and writing papers.
 - Even ignoring the above capacity data, we estimate that the total investment in new deinking equipment necessary to supply the government's demand for commodity grade printing and writing papers at the 15 % postconsumer level would be about \$29 million and about \$48 million at the 25 % level.
- o We cannot predict how much demand will come from State and local governments or the from the private sector, but it is clear from actions taken by 26 States and such companies as Budweiser, Coca Cola, Pepsico, and McDonalds that these sectors are insisting on recycled paper containing postconsumer recovered materials.

Impact On Federal Budget

- o Even though the Executive Order directs agencies to purchase recycled printing and writing papers even they cost more than comparable virgin papers, we anticipate that there will be no increased cost to the Federal government as a result of the recycled paper provisions of the Executive Order.
- o The Order directs agencies to implement waste prevention techniques so that their printing and writing paper expenditures do not exceed typical annual spending levels.
- o We anticipate that any increased paper costs would be offset by reductions in the amount of paper used by the agencies. For example, if 50 % of photocopies made by the Federal government were two-sided, paper use would decrease by 25 %.
- o Because a 12 % reduction in paper usage should be readily achievable, there is good reason to expect the recycled paper provisions to be, at a minimum, revenue neutral.
- o In fact, based on the experiences of others, there is the potential that significant savings will result from office paper reduction programs begun as a result of the Order.
 - AT&T's New Jersey Customer Information Center and Seagate Technologies report reductions in paper use of 41 % and 33 %, respectively, through two-sided copying and other paper reduction activities.
 - Bell Communications and New York City estimate that reductions on the order of 11 to 55 % are attainable, depending on the aggressiveness of their outreach and education programs.
- o If we were to ignore the savings that we anticipate as a result of implementing office paper reduction programs, over the short run, it is likely to cost a typical mill 8 to 12 % more to produce commodity grade printing and writing papers meeting the 15 % postconsumer content standard than to produce equivalent virgin papers.
 - Under a worst case scenario in which the entire 8 to 12 % cost increase were passed on to the government, the Federal budget would increase by between \$24 and \$36 million.
 - We would not expect to incur such budget increases because of competition for the Federal market and new deinking capacity coming on line at two large commodity mills. For example, the City of Seattle reports having purchased 50 % postconsumer content photocopy paper at a lower cost than it previously paid for virgin copy paper, principally because of the addition of a large, new deinking facility at a Northwest paper mill.

ATTACHMENT

OTHER SUGGESTED APPROACHES

INTRODUCTION

- o We have received numerous comments on the recycled paper provisions contained in the Executive Order, principally from representatives of the paper industry and of various environmental groups.
- o The Executive Order did not fully adopt the approaches suggested by either of these two groups, as explained below.

INDUSTRY'S SUGGESTED APPROACH

- o The American Forest and Paper Association's (AFPA's) Printing and Writing Paper Division represents virtually all domestic printing and writing paper manufacturers.
- o This past Spring, the Division announced a new initiative based on its recognition that an increasing number of its customers are now demanding postconsumer recovered material content.
- o The initiative advocates two equivalent standards for all printing and writing papers:
 - 10 % postconsumer/processed recovered fiber--this includes postconsumer materials, but also includes preconsumer materials that have been printed on or contain coatings; or
 - 50 % recovered paper (this includes all recovered paper, both pre- and postconsumer).
- o AFPA argues that, by establishing a low threshold for entry into the recycling market, every large, fast machine will be able to use recovered materials. As customers demand higher recycled content levels in the future, the mills will continue to make recycled paper to maintain market share.
- o There are several problems with AFPA's recommended approach.
 - It does not meet the statutory mandate of maximizing the postconsumer recovered material content of the paper products purchased by the government.

- Paper companies can meet the government's printing and writing paper needs without using any postconsumer materials. Over 50 times the quantity of preconsumer materials that meet AFPA's definition of postconsumer/processed recovered fiber are now being recovered from the waste stream than are necessary to manufacture the quantity of paper the Federal government purchases.
- As the recognized standard for printing and writing papers is now 50 % total recycled content, with 10 % postconsumer content, AFPA's approach will be perceived as a giant backwards step. This is especially true because the AFPA standard can be met without the use of any postconsumer recovered materials.
 - The Order, in contrast, would establish a 15 % postconsumer content standard which will represent a forward step in providing markets for materials being diverted from the municipal waste stream.
- State and local governments favor standards that specify postconsumer materials. Should we adopt industry's approach, they will not follow the Federal government's lead, which is what happened in the case of EPA's 1988 guideline which did not contain a postconsumer content standard for printing and writing papers.
- Environmentalists favor standards that specify postconsumer materials, have ridiculed industry's proposal as being too little, too late, and will view adoption of the industry's approach as a major retreat from the current recycled paper procurement standard.

ENVIRONMENTAL GROUPS' SUGGESTED APPROACH

- o With regard to paper procurement, the most active environmental groups have been the Environmental Defense Fund (EDF), the Sierra Club, the Natural Resources Defense Council (NRDC), and the Environmental Action Foundation (EAF).
- o The prevailing view of the environmental groups (NRDC, EAF, and Sierra Club) is that paper procurement guidelines should specify 50 % total recycled content, including 15 % (EAF) or 25 % (NRDC, Sierra Club) postconsumer recovered materials. They want the postconsumer content standard to increase to 50 % over time.

- o The Executive Order did not adopt the approach suggested by the environmental groups because it has several fundamental shortcomings.
 - A 50 % total recycled content standard, whether pre- or postconsumer, is a barrier to the large, fast paper machines because it would increase production costs by about 33 %.
 - Industry will not make the investment necessary to meet the 50 % standard with little likelihood that the increased production costs can be passed on to consumers.
 - Such an approach does not meet the goal of increasing government purchases of commodity grade printing and writing papers. Agencies will be unable to buy paper that contains 50% total recycled content because of its high cost.
- o In contrast, for commodity grade papers, the Executive Order replaces the 50 % total recycled content with a 15 % postconsumer content standard that escalates to 25 % in 1999. This will result in significantly lower costs for industry to make commodity grade printing and writing papers that meet Federal content standards.

EXECUTIVE ORDER PROVISION ON TCF PAPER

- ◆ Current Executive Order requires federal agencies to establish goals for procurement of totally chlorine-free (TCF) paper products to be achieved by 1995. Separate goals are to be established for the different categories of paper products. Agencies are to report annually on progress toward goals.
 - The provision is for establishment of goals by each agency, rather than mandating requirements.
- ◆ Executive Order will also include a provision to identify and eliminate barriers to the purchase of TCF paper.

DESCRIPTION OF THE PROBLEM

- ♦ Kraft mills have traditionally relied upon chlorine or derivatives (such as chlorine dioxide and hypochlorite) to achieve a high degree of brightness for pulp used to manufacture paper products.
- ♦ The use of elemental chlorine and chlorine derivatives has been linked to the discharge of dioxins, furans, and other chlorinated compounds in wastewater discharges from paper mills. Studies by EPA have confirmed dioxins/furans in wastewater effluent and sludge, while the 1992 National Study of Chemical Residues in Fish found dioxins/furans in fish taken from streams near all bleached pulp mills sampled between 1986 and 1990.
 - Epidemiology studies indicate that dioxin and related compounds may be carcinogenic in humans, but additional study is needed.
 - Noncancer effects associated with dioxin include impairment of endocrine function (reproduction) in animals and humans, changes in immune function, and behavioral effects in offspring of exposed animals.
 - Some data suggest that these noncancer effects may occur in humans at extremely low levels of exposure (i.e., at, or near, current background levels).
 - Specific subpopulations may be exposed to higher levels of dioxins and other chlorinated compounds than the general population. There have been 2 major class action lawsuits, brought by subsistence fishermen, that have been won against pulp and paper mills that discharge dioxin and that have contaminated downstream fisheries. These suits were based on the higher dioxin risks experienced by subsistence fishermen.
 - A recent interim report issued by EPA reviews the literature and reports reproductive toxicity for fish, birds, and mammals due to dioxin and related compounds.
- ♦ Chlorine and chlorine derivatives are also the source of high levels of chloroform emissions from paper mills. The pulp and paper industry accounted for 91% of chloroform emissions reported under federal law in 1991 from all industrial sources.
 - Chloroform is a known human carcinogen.

DESCRIPTION OF THE PROBLEM
(Continued)

- ◆ EPA has gathered data from 28 chlorinated phenolic compounds that exhibit a range of human health effects and are potentially toxic to aquatic life. Relatively little is known about other chlorinated organics released in wastewater from bleaching processes.

- ◆ U.S. industry has reduced the use of elemental chlorine through process changes (such as oxygen delignification) and the use of chlorine dioxide as a bleaching agent. These changes significantly reduce--but do not eliminate--dioxins and furans, chloroform, and other chlorinated compounds. Totally chlorine-free technology completely eliminates the use of chlorine and derivatives in bleaching through the use of substitutes such as oxygen, hydrogen peroxide, and ozone.

INTEGRATED RULEMAKING

- ♦ This fall, EPA will propose an integrated rule for the pulp and paper industry that will include effluent standards for wastewater and emission standards for hazardous air pollutants.
- ♦ The effluent guideline is based on "best available technology" and the air standard on "maximum available control technology"--i.e., standards will be based on existing technologies. EPA must identify the technological option or options that achieve the greatest reduction in toxic air emissions or wastewater discharges. These options will be used to identify a "performance standard" that industry can meet as cost-effectively as it knows how.
- ♦ For kraft mills, the integrated rule is likely to propose performance standards that are based on oxygen delignification, high levels of chlorine dioxide substitution, and some end-of-pipe treatment.
 - The proposed standard for kraft mills will not require TCF, since the technology is not currently available for producing high brightness paper from softwoods using the kraft process. However, EPA is considering offering incentives (e.g., reduced monitoring requirements) to mills that go further than required by investing in TCF.
- ♦ EPA is considering proposing TCF as the basis of the standard for the much smaller category of sulfite mills.
- ♦ Establishing a goal for the purchase of TCF paper by the federal government is consistent with EPA's strategy of providing incentives for this new technology, without forcing it through regulatory requirements.

TECHNICAL FEASIBILITY

Existing/Planned Capacity--International

- ◆ British Columbia has set a goal for eliminating the use of chlorine and its derivatives in bleaching by the year 2000. At least one (and perhaps more) Canadian kraft mills have developed TCF capacity in anticipation of the new market.
- ◆ Ontario has also proposed regulations for zero discharge of organochlorines from pulp and paper effluents by the year 2002. Ontario has 26 mills, of which 8 are kraft mills that bleach with chlorine.
- ◆ The Federal Republic of Germany, which represents approximately 15% of world demand for bleached pulp, is requiring paper manufactured for the German market to be made with TCF pulp. At least 12 kraft mills in Europe have invested in significant TCF capacity, presumably to supply the German market.

Existing Capacity--U.S.

- ◆ Two sulfite mills in the United States (Lyons Falls and Georgia-Pacific) produce TCF paper already. However, sulfite mills represent a small fraction of total U.S. pulp and paper production, which is dominated by large kraft mills.
- ◆ In the United States, Louisiana-Pacific has opted to convert all production to TCF bleaching by 1995. Louisiana-Pacific makes 250,000 pounds of pulp per year, or about 1% of U.S. capacity.
- ◆ Union Camp's mill in Franklin, Virginia, has eliminated chlorine and uses only small amounts of chlorine dioxide in the last stage of bleaching. It has the capacity to convert to TCF if sufficient market demand develops.
- ◆ However, neither Louisiana-Pacific nor Union Camp currently achieve high levels of brightness in pulp made from softwoods, which is the predominant wood source in the U.S. Softwoods contain more lignin than hardwoods, require more bleaching, and create more chlorinated organics.

TECHNICAL FEASIBILITY
(Continued)

Predicted Demand

- ♦ Some industry experts predict a steady increase in the demand for TCF paper. Fred Miller, the manager of Louisiana-Pacific's Samoa mill, has said that, "There definitely is a European market, there is evidence of a forming U.S. market, and we expect both to grow."
- ♦ Wells E. Nutt, President of Union Camp Technology, asks, "How long before TCF must be used. Some day it will happen. Perhaps 5-7 years."
- ♦ Jack O'Brien, editor of the trade magazine Paper Age, predicts that "the move to TCF will have taken a firm hold" within 5 to 7 years.
- ♦ The American Forest and Paper Association believes that demand for TCF paper will largely be limited to Germany.

ECONOMIC IMPACTS

- ◆ The pulp and paper industry has estimated that the proposed Executive Order provision on TCF would cost \$3 billion. That estimate apparently rests on the clearly erroneous assumption that every U.S. kraft mill would convert to TCF as a result of the proposed Executive Order.
 - The proposed Executive Order includes a provision requiring federal agencies to set a goal for the purchase of TCF paper by 1995. That goal would presumably affect only a fraction of the 2.5% of total U.S. demand for paper products represented by U.S. paper.
- ◆ As the industry has provided no further information to support these estimates, it is impossible to assess their accuracy.
- ◆ Nor is it possible to evaluate the industry's claim that an increased demand for TCF paper in this country would result in significant job dislocation. To the contrary, failure to anticipate and meet demand for TCF paper in Europe may cost U.S. manufacturers a significant share of the international market.
- ◆ EPA has not prepared detailed cost estimates comparing TCF technology to chlorine dioxide substitution, because it is not currently considering basing regulatory standards for kraft mills on this technology. Experts disagree on relative cost, with some believing that it is cheaper in the long run due to lower operating expenses.

BENEFITS OF TCF

- ♦ Totally chlorine free bleaching offers several potential advantages when compared to chlorine dioxide substitution.
- ♦ First, until we limit chlorine and chlorine derivatives, there will always be a possibility that dioxins and furans are being generated below current limits of detection. Recent studies suggest that even these low levels are cause for concern. In contrast, TCF completely eliminates dioxins and furans.
- ♦ Second, TCF eliminates any uncertainty regarding the health effects of other chlorinated organics contained in kraft mill waste streams that are not currently understood.
- ♦ Third, TCF may avoid the need for future regulation of kraft mill sludges, which could be very costly to industry. Sludges are not the subject of EPA's current rulemaking.
- ♦ Fourth, TCF offers the opportunity to "close up" bleaching processes by recycling wastewater discharges to a recovery system, thereby reducing waste treatment costs. Closing the loop is presently impossible with chlorine-containing compounds, due to their corrosive nature.
- ♦ Fifth, an investment in TCF would allow American manufacturers to take advantage of any upswing in international demand for chlorine-free pulp.

GUIDELINE DEVELOPMENT PROCESS

RECYCLED PRODUCT PROCUREMENT GUIDELINES

Executive Order Provisions

- Section 502(a) of the proposed Executive Order establishes a new process for development and issuance of EPA's procurement guidelines for products containing recovered materials. The new process bifurcates the manner in which EPA designates recycled products and provides recommendations for government agencies to use in purchasing the designated products.
- Under the new process:
 - EPA will **designate** items that are or can be made with recovered materials by issuing a **Comprehensive Procurement Guideline (CPG)** in the rules section of the *Federal Register*. Formal notice-and-comment rulemaking will be used.
 - EPA will provide procurement **recommendations** to government agencies by issuing **Procurement Recommendation Notices (PRNs)** in the notice section of the *Federal Register*. A more informal development process which also provides for full public comment will be used.

Description of Problem

- Many states have or will shortly face a shortage of landfill capacity for disposal of their garbage. This shortage, coupled with new design and operating requirements for solid waste landfills, is leading to increased solid waste disposal costs.
 - State and local governments are responding by changing the manner in which they handle solid waste. They are instituting recovered materials collection programs for offices, commercial establishments, and residences. Some government agencies and businesses also are instituting waste prevention techniques and seeking environmentally preferable alternatives to products that they use.
 - The markets for the collected recovered materials are not always adequate, however. In order to stimulate these markets by creating demand, governments are using their purchasing power and buying products containing recovered materials.
- The current guidelines development process is costly and time-consuming. Currently, both item designations and recommendations are developed, proposed, and finalized in the same *Federal Register* notice and subsequently codified in Title 40 of the *Code of Federal Regulations*. Formal internal agency review and public notice-and-comment rulemaking are used to develop both the designations and the

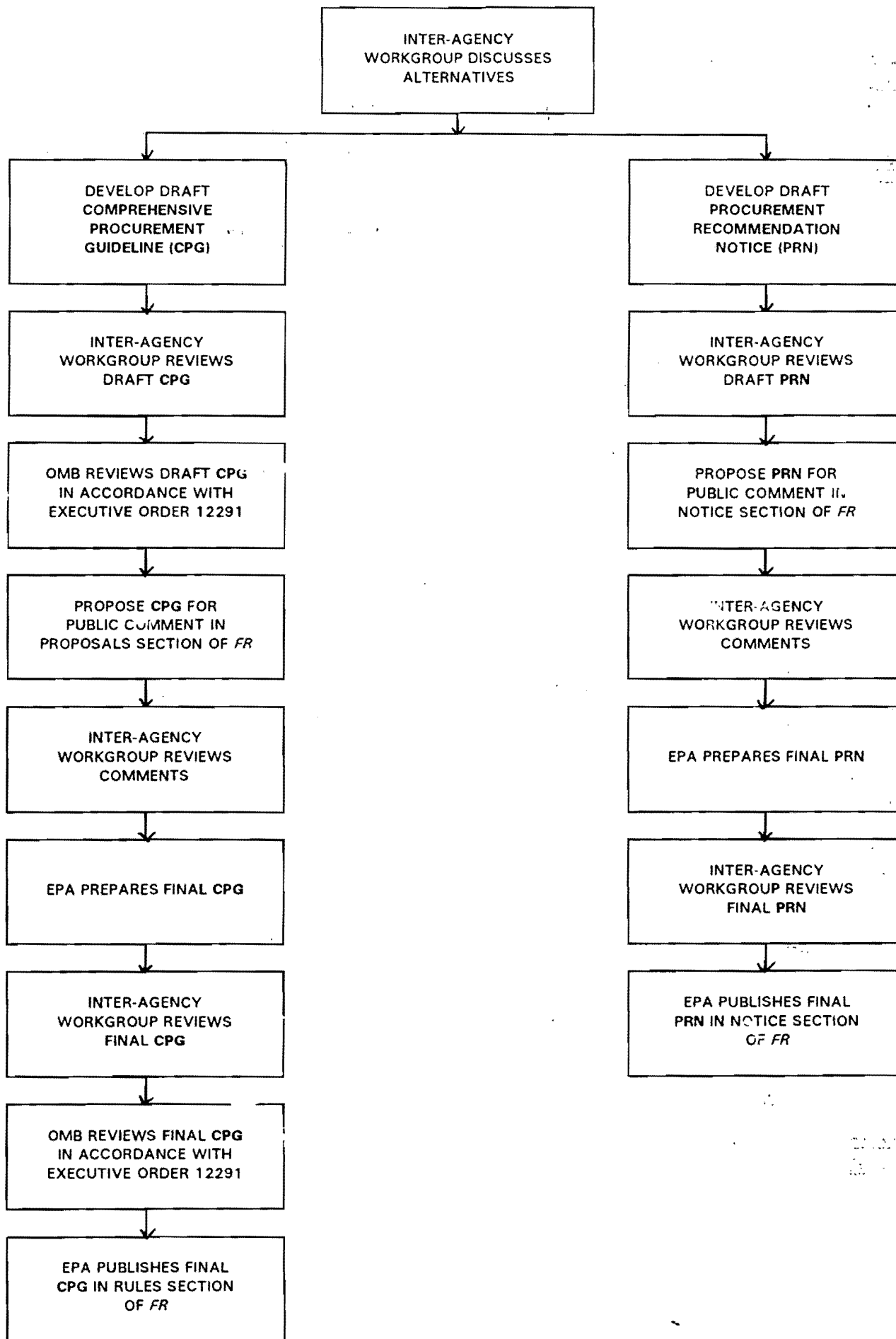
recommendations. Similarly, revisions to the recommendations also follow this formal rulemaking process.

- In the guidelines, EPA recommends that agencies use minimum recovered materials content standards and recommends specific content levels for designated items. *Because it is time-consuming to revise these recommendations, they are treated by manufacturers and the purchasing agencies as if they were regulatory standards.* Therefore, EPA currently conducts extensive research because an inadvertent error will affect procurement for a long time. The research is quickly outdated due to the lengthy review process.
- Due to the significant time and resource implications of this process, EPA only issued five procurement guidelines between 1983 and 1989. EPA has been criticized by Congress, procuring agencies, and environmental groups for the slow speed at which guidelines are developed.
- EPA also is prevented from quickly revising recommendations in response to market changes, innovation, and investment because regulations codified in the *Code of Federal Regulations* must move through the formal rulemaking process. It is far easier for the General Services Administration to revise its specifications to respond to product changes than it is for EPA to revise its recommendations. Yet both affect government purchasing decisions. For example, in 1992, GSA conducted a market survey to ascertain the availability of specific types of writing paper containing 50% total recycled materials including 10% postconsumer materials. GSA revised several of its specifications based on the survey results. EPA cannot make analogous revisions to the recommendations in the paper guideline without going through the formal rulemaking process. Thus, GSA can revise its specifications in a few months but EPA requires at least two years to recommend similar specification revisions.

Benefits Expected

- The flow chart on the following page depicts the new process.
 - **Item designations** will continue to be developed through the formal notice-and-comment rulemaking process.
 - **Recommendations** will be developed through a shorter, more informal process. Inter-agency and public comment will not be eliminated but will be obtained through a shorter process, relying more heavily on inter-agency working groups.

STREAMLINED PROCESS



- The Procurement Recommendation Notices will provide *timely* advice and recommendations. They will be developed more expeditiously and can be modified quickly to reflect changing market conditions.
 - EPA will invite participation by the General Services Administration, Office of Federal Procurement Policy, OIRA, and other Federal agencies.
 - EPA has obtained actual procurement information from members of the current Council on Federal Recycling and Procurement Policy and its workgroups as well as from other Federal agencies who responded to questionnaires distributed by OMB under RCRA Section 6002(g). EPA plans to obtain similar information from the members of the proposed Federal Task Force and its workgroups. EPA's recommendations thus will be responsive to the actual problems and successes encountered by Federal agencies.
 - EPA will solicit public comments on draft PRNs, prior to their final issuance, through a *Federal Register* notice.
- By streamlining and issuing a comprehensive procurement guideline, EPA will be able to:
 - Quickly modify our recommendations to respond to technical developments, product innovations, new products, and other related changes. This will keep the Federal government on the forefront of technological changes in recycling as recovered materials content increases in products.
 - Revise recommendations quickly if the existing recommendations do not result in increased purchases by Federal agencies. By responding more quickly, EPA will be able to make timely recommendations to address problems encountered by Federal agencies and to promote their successes to other agencies.
 - Implement a more fluid process that allows us to designate more items faster and with fewer resources.

Technical Feasibility

- In 1976, Section 6002 of the Resource Conservation and Recovery Act established a Federal "buy recycled" program. It requires EPA to **designate** items that are or can be made with recovered materials and to **recommend** procurement practices for government agencies to use in purchasing those items. It also requires government agencies to establish **affirmative procurement programs** for the EPA-designated

items and to revise their **specifications**, as needed, to provide for the use of recovered materials in the items to the maximum extent practicable.

- EPA's Office of General Counsel believes that the item designations must be issued through formal rulemakings because they trigger statutory procurement and specifications requirements for government agencies. By contrast, because EPA's recommendations are not mandatory, they can be issued through a more informal process.

Impacts

- In developing guidelines, EPA balances product cost and recycled content maximization in recommending minimum content standards for agencies to use.
 - The new process will allow EPA to achieve this balance while increasing the quantity of recycled products procured and used by the Federal government and to do so in a more timely manner.
- The new process will be more responsive to problems and successes experienced by purchasing agencies and to product changes. It will allow EPA to make timely adjustments to our recommendations without sacrificing inter-agency and public participation during the development of recommendations.

GUIDANCE ON ENVIRONMENTALLY PREFERABLE PRODUCTS

Executive Order Provisions

- Section 502(b) requires EPA to identify and develop guidance for items that are environmentally preferable. EPA is proposing to revise this provision to a requirement that (1) we issue guiding principles for identifying environmentally preferable and (2) agencies use these principles to identify and purchase environmentally preferable products. EPA will not develop a list of these products.

Description of Problem

- The recycled product procurement guidelines have been a powerful instrument driving public and private procurement of recycled products. Guidance for environmentally preferable products has similar potential to spur progress in the availability of products that prevent waste, reduce toxics, and consume less energy. Except for the prescriptions in the Federal Trade Commission's Environmental Marketing Guides, however, such guidance currently does not exist, and purchasers are looking to EPA to develop it.

Benefits Expected

- Congress has expressed an interest in Federal government procurement of environmentally preferable products, and agencies have looked to EPA for leadership in identifying these products. The proposed guiding principles will provide this leadership, promote the development of environmentally preferable products and, thereby, reduce or minimize adverse effects on human health and the environment.

Technical Feasibility

- The proposed Executive Order distinguishes between guidelines for recycled products and guidance for environmentally preferable products because there is a different basis for procurement of the two types of products.
- EPA will use other authority for issuing the guidance on environmentally preferable products.
 - The **Pollution Prevention Act of 1990** requires EPA to identify opportunities to use Federal Procurement to encourage pollution prevention.
 - **OMB Policy Letter No. 92-4** requires executive agencies to identify and procure "environmentally sound" and energy efficient products and services.
 - **OMB Circular A-119** encourages Federal agencies to participate in the development of environmentally sound and economically efficient standards and to encourage the use of such standards.
- EPA will use formal notice-and-comment rulemaking, including OIRA review pursuant to Executive Order 12291, in developing the general principles for agencies to use when purchasing environmentally preferable products.
 - The general principles will identify such criteria as reduced packaging, reusability, and reduced toxicity.
 - Because agencies will be able to integrate the guiding principles into their existing procurement systems, they will be able to use the principles in a manner that best suits their needs. For example, the General Services Administration's Federal Supply System uses green dots to identify environmentally preferable products in its product catalog. GSA will be able to use EPA's guiding principles to identify additional products without changing its catalog system.
 - The revised text for section 502(b) of the proposed Executive Order is attached.

Impacts

- Finally, by specifying guiding principles to be used in identifying environmentally preferable products, and by identifying and procuring these products, the Federal government will be taking the lead in encouraging manufacturers to develop these products.

PROPOSED REVISION TO EO SECTION 502(b)(1) and (b)(2)

(b) In accordance with this order, EPA shall issue guidance that recommends guiding principles that Agencies should use in purchasing environmentally preferable products.

(1) Initial guidance shall be published for public comment in the *Federal Register* within 180 days after the effective date of this order, and may be updated if necessary thereafter. To the extent necessary, EPA may issue additional guidance on how the principles can be applied to specific product categories.

(2) Once guidance for environmentally preferable products have been identified by EPA, Executive agencies shall use these principles to the maximum extent practicable, in identifying and purchasing environmentally preferable products, and shall modify their procurement programs by reviewing and revising specifications, solicitation procedures, and policies, as appropriate.