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# Part VII

# Environmental Protection Agency

## Paper Products Recovered Materials Advisory; Notice

## ENVIRONMENTAL PROTECTION AGENCY

[SWH-FRL-5172-9]

### Paper Products Recovered Materials Advisory Notice

**AGENCY:** Environmental Protection Agency.

**ACTION:** Notice of availability.

**SUMMARY:** The Environmental Protection Agency today is providing notice of the availability of a draft Paper Products Recovered Materials Advisory Notice and "Draft Paper Products RMAN—Supporting Analyses." This action will promote paper recycling by using government procurement to expand markets for recovered paper. Under section 6002 of the Resource Conservation and Recovery Act of 1976, EPA designates items that are or can be made with recovered materials and provides recommendations for government procurement of these items. In 1988, EPA designated the category of paper and paper products and recommended minimum recovered materials content levels for items within this category that are commonly purchased by government agencies. Today, EPA is issuing draft revisions to the 1988 recommendations. EPA also addresses issues raised by paper manufacturers, merchants, and purchasers as they have been implementing the 1988 recommendations.

**DATES:** EPA will accept public comments on the recommendations contained in the draft Paper Products Recovered Materials Advisory Notice until May 15, 1995. Both written and electronic comments must be submitted on or before this date.

**ADDRESSES:** Commenters must send an original and two copies of comments, referencing docket F-95-PPRN-FFFFF, to the RCRA Information Center (5305), U.S. EPA, 401 M Street SW., Washington, DC 20460.

Commenters wishing to submit Confidential Business Information (CBI) should submit an original and two copies of the CBI, referencing docket F-95-PPRN-FFFFF, under separate cover to the Document Control Officer (5305), U.S. EPA, 401 M Street SW., Washington, DC 20460.

Comments may also be submitted electronically by sending electronic mail (e-mail) through the Internet System to: RCRA-Docket@epamail.epa.gov. All electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. The comments should be identified by docket number F-95-PPRN-FFFFF. Further information on submitting comments electronically is provided below in the section entitled "Electronic Filing of Comments."

Public comments and relevant documents are available for viewing in the RCRA Information Center (RIC), located in room M2616, at the EPA address listed above. The RIC is open from 9 am to 4 pm, Monday through Friday, excluding Federal holidays. To review docket materials, the public must make an appointment by calling (202) 260-9327. Materials may be copied for $0.15 per page.

**FOR FURTHER INFORMATION CONTACT:** "Draft Paper Products RMAN—Supporting Analyses" is the primary supporting document for the draft Paper Products Recovered Materials Advisory Notice (RMAN). Both the **Federal Register** notice and the supporting document will be available in electronic format on the Internet System through the EPA Public Access Server at gopher.epa.gov. For a paper copy of the **Federal Register** notice or "Draft Paper Products RMAN—Supporting Analyses," please contact the RCRA Hotline at 800-424-9346, or, in the Washington, DC metropolitan area, (703) 412-9810. Paper copies also are available in the RCRA Docket at the address listed in the previous section.

For technical information regarding the recommendations in today's notice, contact Dana Arnold of the Recycling Section in EPA's Office of Solid Waste at (703) 308-7279.

**ELECTRONIC FILING OF COMMENTS:** As part of an interagency "streamlining" initiative, EPA is experimenting with electronic submission of public comments through the Internet, in addition to accepting comments in traditional written form. This notice is one of the actions selected by EPA for this experiment. From the experiment, EPA will learn how electronic commenting works, and any problems that arise can be addressed before EPA adopts electronic commenting more broadly in its rulemaking activities.

Electronic comment through the Internet raises some novel issues. Persons who comment on this document should be aware that this experimental electronic commenting is administered on a completely public system. Therefore, any personal information included in comments and the electronic mail addresses of those who make comments electronically are automatically available to anyone else who views these comments.

Similarly, since all electronic comments are available to all users, commenters should not submit electronically any information which they believe to be Confidential Business Information (CBI). Such information should be submitted only in writing as described above under **ADDRESSES.**

The official record for this action will be kept in paper form. Accordingly, EPA will convert all documents received electronically into printed paper form as they are received and will place the paper copies in the official record, which will also include all comments submitted directly in writing. The official record is the paper record maintained in the RCRA docket (see **ADDRESSES** above). (Comments submitted on paper will not be transferred to electronic format. These comments may be viewed only in the RCRA docket as described above.)

Because the electronic comment process is still experimental, EPA cannot guarantee that all electronic comments can be accurately converted to printed paper form. If EPA becomes aware of any problems with the receipt of the electronic file or with its transfer to paper, the Agency will attempt to contact the commenter to request that the comment be resubmitted in electronic or written form.

Some commenters may choose to submit identical comments in both electronic and written form to ensure accuracy. In these instances, EPA requests that commenters clearly note in both the electronic and written submissions that the comments are duplicated in the other medium. This will assist EPA in processing and filing the comments during the open comment period.

As with written comments, EPA will not attempt to verify the identities of electronic commenters or to review the accuracy of electronic comments. EPA will take such commenters and comments at face value. Electronic and written comments will be placed in the official record without any editing or change by EPA except to the extent changes occur in the process of converting electronic comments to printed paper form.

If it chooses to respond officially to electronic comments on this notice, EPA will do so either in a notice in the **Federal Register** or in a response to comments document placed in the official record for this docket. EPA will not respond to commenters electronically, other than to seek clarification of electronic comments that may be garbled in transmission or conversion to printed paper form. Any communications from EPA employees

to electronic commenters, other than those described in this paragraph, either through Internet or otherwise are not official responses from EPA.

**ACCESSING INTERNET:**

1. Through Gopher: Go to: gopher.epa.gov

From the main menu, choose "EPA Offices and Regions". Next, choose "Office of Solid Waste and Emergency Response (OSWER)". Next, choose "Office of Solid Waste". Then, choose "Non-Hazardous Waste—RCRA Subtitle D". Finally, choose "Procurement/Paper".

2. Through FTP: Go to: ftp.epa.gov

Login: anonymous
Password: Your Internet Address
Files are located in directories/pub/gopher. All OSW files are in directories beginning with "OSW".

3. Through MOSAIC: Go to: http://www.epa.gov

Choose the EPA Public Access Gopher. From the main (Gopher) menu, choose "EPA Offices and Regions". Next, choose "Office of Solid Waste and Emergency Response (OSWER)." Next, choose "Office of Solid Waste". Then, choose "Non-Hazardous Waste—RCRA Subtitle D". Finally, choose "Procurement/Paper".

4. Through dial-up access:

Dial 919–558–0335. Choose EPA Public Access Gopher. From the main (Gopher) menu, choose "EPA Offices and Regions". Next, choose "Office of Solid Waste and Emergency Response (OSWER)". Next, choose "Office of Solid Waste". Then, choose "Non-Hazardous Waste—RCRA Subtitle D". Finally, choose "Procurement/Paper".

**SUPPLEMENTARY INFORMATION:**

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## I. Authority

The draft Paper Products Recovered Materials Advisory Notice is published under authority of sections 2002(a) and 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6912(a) and 6962, and Executive Order 12873, "Federal Acquisition, Recycling, and Waste Prevention" (58 FR 54911, October 22, 1993).

## II. Introduction

Today, the U.S. Environmental Protection Agency (EPA or the Agency) is publishing a draft Recovered Materials Advisory Notice (RMAN), which contains recommendations for procuring agencies to use when purchasing paper and paper products in accordance with section 6002 of the Resource Conservation and Recovery Act of 1976 (RCRA).

Detailed information supporting EPA's draft recommendations are found in "Draft Paper Products RMAN—Supporting Analyses." This document is available electronically and in paper form. See the section above entitled **FOR FURTHER INFORMATION CONTACT** for instructions for obtaining the supporting analyses document in either format.

### *A. Objectives*

In developing the draft recommendations for paper and paper products, EPA considered two objectives. As required by RCRA section 6002, EPA's first objective is to recommend content levels that will maximize the use of postconsumer recovered materials in paper and paper products. EPA's second objective is to promote paper recycling by increasing both the usage of postconsumer recovered materials in paper manufacturing and the availability of competitively-priced paper and paper products containing postconsumer and other recovered materials.

EPA recognizes that while its recommendations are meant primarily for the use of government procuring agencies, EPA's guidance is widely used by private sector purchasers, who represent 95% or more of paper demand. EPA has found that when its recommendations for postconsumer recovered materials content are too high, paper and paper products containing these high percentages are often unavailable to government agencies and private sector purchasers or are not consistently available throughout the U.S. Also, while some paper and paper products containing these high percentages of recovered materials are available, they often are not price-competitive with other paper and paper products offered to government agencies and private sector purchasers. As a result, overall use of postconsumer recovered materials may not be maximized simply by EPA's recommending high postconsumer content levels.

Since designating paper and paper products as procurement items in 1988, EPA has found that increasing demand from both public and private sector purchasers has resulted in greater recycling of postconsumer recovered materials than simply increasing demand from the public sector. Therefore, in establishing today's draft content recommendations, EPA sought to increase the availability to both government and private purchasers of reasonably-priced paper and paper products containing postconsumer recovered materials. EPA strongly believes that this approach will maximize the recycling and use of postconsumer recovered materials.

Therefore, to meet its twin objectives, EPA is adopting a different approach than was used in 1988 to recommend content levels for paper and paper products. As explained in more detail below, EPA is recommending two-part content levels, consisting of a postconsumer fiber component and a recovered fiber component. EPA believes that the two-part recommendations will assure that there is a demand for all recovered materials, including postconsumer recovered materials, as well as those generated during paper converting and printing operations.

Further, EPA is recommending content ranges for each component, whenever appropriate, to encourage increased purchasing of paper and paper products containing postconsumer and recovered fiber throughout the U.S. EPA believes that ranges are appropriate for three reasons. First, Executive Order 12873 directs EPA to recommend ranges. Second, while many agencies will continue to purchase paper products centrally (or from the General Services Administration or the Government Printing Office), local purchases will increase as a result of recent government procurement reform, which increases the small purchase threshold and allows greater local purchasing using credit cards. Currently, the postconsumer and total recovered fiber content of many paper products varies, as does product

availability, across the U.S. Procuring agencies can use the ranges as an information source in establishing standards for local purchases.

Third, although EPA's recommendations are intended for government purchasing agencies and their contractors, the Agency is aware that private sector purchasers refer to EPA's recommendations when purchasing paper products. EPA wants to encourage the continued broad use of its recommendations to foster greater demand for products containing postconsumer and recovered fiber, which, in turn, will lead to increased usage of these materials. However, EPA believes that private sector purchasers may be able to find paper and paper products available only at the lower end of the ranges, because the large quantities of paper that these purchasers need will be manufactured mainly by mills that use only lower levels of postconsumer and recovered fiber.

There currently are insufficient quantities of paper and paper products containing high percentages of postconsumer and recovered fiber to meet the demand of both public and private sector purchasers. By recommending ranges, EPA is acknowledging that some purchasers will be able to buy products that contain high percentages of postconsumer and recovered fiber, while others will find that products are available that contain lower percentages of these materials. Others, while not being able to buy price-competitive products that contain postconsumer and recovered fiber even at the low end of the ranges, will continue to seek such products, increasing overall demand for recycled paper products. EPA anticipates that this increased demand for and purchase of paper and paper products containing postconsumer and recovered fiber, even at the low end of the recommended ranges, will spur pulp and paper mills to make additional capital investments in the equipment and systems needed to use greater percentages of these fibers and to produce them at a competitive price.

Therefore, EPA encourages both public and private sector purchasers to establish their minimum content standards at the highest levels practicable; if a product is not available at a competitive price and at a content level at the high end of the range, purchasers should set their standards at the highest levels available to them that meet their price and performance objectives, using the recommended range as a guide. In this way, EPA's recommended ranges will encourage both public and private sector purchasers to purchase paper products containing the highest levels of postconsumer and recovered fiber practicable.

Finally, by establishing ranges, EPA is taking into account the diversity that exists within the paper industry. The recommendations recognize that, in many grades of paper, larger quantities of paper and paper products are produced at mills that primarily use wood-based fiber than at mills that primarily use recovered and postconsumer fiber. While it is not currently economically feasible for these mills to substitute high percentages of postconsumer fiber for the wood-based fiber, it is technically and economically possible for them to use lower percentages of postconsumer and recovered fiber. EPA believes that ranges will provide an incentive for all paper mills to maximize their usage of postconsumer and recovered fiber. This will lead to greater availability of competitively-priced paper and paper products for both public and private purchasers. In the long run, this approach will lead to greater demand for postconsumer and recovered fiber.

*B. The Procurement Guidelines Development Process*

EPA's procurement guidelines are required by section 6002 of RCRA and Executive Order 12873. In an April 20, 1994 **Federal Register** notice, EPA explained that under Executive Order 12873, the Agency is required to issue a regulation, known as a Comprehensive Procurement Guideline (CPG), which will designate items that procuring agencies should purchase containing recovered materials. Executive Order 12873 also directed EPA to issue guidance documents, known as Recovered Materials Advisory Notices, which will contain EPA's recommendations for purchasing the designated items. In the April 20, 1994 **Federal Register**, EPA published the first draft RMAN, which established eight product categories corresponding to the categories used in the CPG. One of these categories, Part A, was reserved for recommendations for paper and paper products. See the April 20, 1994 **Federal Register** (59 FR 18852) and "Draft Paper Products RMAN—Supporting Analyses" for more detail about the requirements of RCRA section 6002 and the guidelines development process.

In today's notice, EPA is announcing that the draft recommendations for paper and paper products are available for public review and comment. EPA's draft recommendations are found in the Appendix at the end of this **Federal Register** notice. They are arranged in the RMAN format established by the April 20, 1994 **Federal Register** notice. As noted above, detailed information supporting the draft recommendations are found in "Draft Paper Products RMAN—Supporting Analyses."

*C. Approach to Recovered Materials Content Recommendations*

1. One-Part vs. Two-Part Content Levels

As defined in RCRA section 6002(h), the term "recovered materials" refers to materials generated after the end of the papermaking process. Recovered materials can be generated by many sources, including paper mills, intermediate paper users such as printers and converters, merchants, retailers, and the intended end user. Recovered materials are sometimes divided into "preconsumer materials," which refers to materials that have not passed through their intended end usage, and "postconsumer materials," which refers to materials that have passed through their intended end usage. Minimum content standards can be expressed as a percentage of postconsumer materials content, a percentage of recovered materials (or total recovered materials) content, or percentages of both. For example, today, a common content standard for printing and writing paper is 50% total recovered materials, including 10% postconsumer materials.

In 1988, EPA recommended postconsumer content levels for newsprint, tissue products, paperboard, and packaging; and "waste paper" content levels for most printing and writing papers. As defined in the 1988 paper procurement guideline, "waste paper" includes postconsumer materials and certain materials generated after the end of the papermaking process (see 53 FR 23551, June 22, 1988).

In response to a 1990 EPA request for comment (55 FR 40384, October 3, 1990) and an EPA-sponsored 1993 public forum, a group of commenters suggested that the Agency recommend two-part content levels consisting of a "total recovered materials" component in addition to a postconsumer recovered materials component. Within this group, some commenters favor a postconsumer materials component that is defined consistently with the postconsumer definition contained in RCRA section 6002(h). Others favor a broader component consisting of postconsumer materials plus certain preconsumer materials that require deinking or cleaning, similar to postconsumer materials, prior to use.

These commenters argue that two-part content levels can achieve two goals: (1) Assure markets for all recovered materials, regardless of source and (2) increase demand for postconsumer materials. Because there is a limited amount of preconsumer recovered materials, commenters argue that pulp and paper mills will need to use greater percentages of postconsumer materials in order to meet total recovered materials requirements in their products. According to one commenter's estimate, the paper industry recovered and used 87% of available preconsumer materials (i.e., materials generated by sources other than the intended end user of a finished product) in 1990.[1] According to the American Forest & Paper Association (AF&PA), an industry association, almost all preconsumer materials are recovered and used when exports are taken into account.

A second group of commenters favored a single, strictly postconsumer standard. These commenters argue that most preconsumer material is already recovered, and that the focus for government procurement should be on postconsumer paper because it is the single largest component of municipal solid waste. They also believe that only a strictly postconsumer standard will stimulate markets for materials collected by municipal recycling programs.

A third group of commenters argue in favor of a single, total recovered materials standard encompassing both preconsumer and postconsumer materials. They believe that because most preconsumer material is already recovered, virtually all additional recovered paper will necessarily come from postconsumer sources.

EPA believes that the two-part approach is preferable to the postconsumer-only and total recovered materials-only approaches because the two-part approach will result in greater usage of postconsumer materials. A single, postconsumer level fails to acknowledge the continuing contribution to solid waste management and the investments made by mills that have been using all recovered materials, regardless of source, that require deinking, cleaning, or processing prior to use. Additionally, EPA believes that, because most preconsumer materials are now being used, total recovered materials content levels will lead to higher use of postconsumer materials as mills seek sufficient materials to meet the total recovered materials content levels.

EPA also believes that a broad, single, total recovered materials content level will not fulfill the statutory requirement that government agencies procure paper products containing the "highest percentage of postconsumer recovered materials practicable."

2. Broad vs. Narrow Definition of "Postconsumer Materials"

Several groups recommended that EPA broaden the postconsumer definition to include certain preconsumer materials that, like postconsumer materials, require deinking or contaminant removal prior to use. These groups state that there is no reason, from a papermaking perspective, to separate these materials. They further state that it is difficult to distinguish postconsumer and preconsumer materials and that tracking of postconsumer materials is not feasible and extremely costly to implement.

It is not the intent of RCRA that pulp and paper mills track every piece of recovered paper or that mills using recovered materials incur unnecessary costs. Under RCRA section 6002, procuring agencies are required to (1) obtain certifications that the product offered to them meets the minimum content level specified in their specifications or solicitation documents and (2) purchase paper products containing the highest levels of postconsumer materials practicable. Procuring agencies are not required to obtain certifications regarding the exact amount of postconsumer or recovered fiber used. For example, if an agency solicits copier paper containing 20% postconsumer fiber, bidders must certify that the product offered contains this minimum percentage. The product may occasionally contain higher levels of postconsumer fiber, but the bidders and the mills supplying them are not required to conduct a detailed analysis in order to determine the exact percentage of postconsumer fiber in the product in excess of the 20% minimum.

Some degree of tracking is needed, however, to identify the postconsumer materials content of paper and paper products offered to government agencies in order (1) to satisfy the RCRA certification requirement and (2) to meet the RCRA requirement that paper and paper products contain the highest levels of postconsumer materials practicable. Although it is difficult, in some instances, to determine whether a material is pre- or postconsumer, manufacturers of deinked market pulp and paper products containing postconsumer materials are making market claims about the postconsumer content of their products. Therefore, EPA believes that the level of information in the market is adequate, and no additional tracking is necessary for mills to certify that their products meet EPA's draft recommendations.

EPA notes that, while several groups also urged the adoption of a broader postconsumer definition for use in Executive Order 12873, the Executive Order contains a postconsumer definition analogous to the statutory definition. EPA believes that its recommendations should be consistent with Executive Order 12873.

As discussed in detail in the supporting analyses document, there have been significant increases in deinking and processing capacity and various technology improvements that make it possible to manufacture virtually all non-food[2] grades of paper and paperboard using some percentage of postconsumer fiber. Thus, EPA believes that it is not necessary to expand the definition of postconsumer materials used in the 1988 procurement guideline. For these reasons, EPA is using the statutory definition of "postconsumer" in today's draft RMAN.

EPA also notes that the type of postconsumer "material" of concern is fiber. For most products, the fiber is derived from wood, but it also can be derived from textiles or agricultural products. The availability of such fiber is limited and has been used primarily by manufacturers of cotton fiber printing and writing papers, which represented less than 1% of printing and writing papers capacity in 1993. Recognizing this, EPA will refer to "postconsumer fiber," rather than to "postconsumer material." EPA believes that the statutory definition is broad enough to encompass postconsumer fiber derived from textiles and other non-wood sources.

Thus, the two-part content levels recommended in today's draft RMAN will consist of a "recovered fiber" component and a "postconsumer fiber" component. These terms are discussed in section III.B below.

[1] See the "Final Report on Recycled Paper Definitions, Standards, Measurement, Labeling Guidelines, and Buy-Recycled Initiative," Addendum E, Recycling Advisory Council, February 6, 1992. EPA placed a copy of the report in the docket for the Paper Products RMAN. The report also is available from the National Recycling Coalition.

[2] Manufacturers of food-grade paper and paperboard must be able to certify that their products meet Food and Drug Administration requirements that the items contain no hazardous and deleterious substances that can migrate into the food. While it is technically possible to produce a food-grade product with recovered and/or postconsumer fiber, the material must be carefully selected. Limited availability of suitable material precludes wide-spread use of recovered or postconsumer fiber in food-grade paper products.

As part of this approach, EPA will no longer use the term "waste paper" for printing and writing papers. EPA prefers the term "recovered fiber" because the name reflects the fact that this material has value. As discussed in section II.B of this preamble, EPA is adapting the 1988 definition of "waste paper" to define "recovered fiber."

3. Establishment of Minimum Recovered Materials Content Levels and Ranges

a. Content recommendations vs. minimum content standards. RCRA section 6002 requires procuring agencies to purchase paper and paper products containing the "highest percentages of postconsumer recovered materials practicable." EPA stated in the 1988 paper procurement guideline that the use of minimum content levels would satisfy this requirement (see 53 FR 23553, June 22, 1988).

Under RCRA section 6002(i), it is the procuring agencies' responsibility to establish minimum recovered materials content standards, while EPA provides recommendations regarding the levels of recovered materials in the designated items. To make it clear that EPA does not establish the specific minimum content standards used by other agencies, EPA will no longer refer to its recommendations as recovered materials content "standards," as was done in the 1988 paper procurement guideline. Instead, EPA will refer to its recommendations as recovered materials content "levels," consistent with RCRA section 6002(e) and Executive Order 12873.

b. Recommended content ranges. Executive Order 12873 directs EPA to present "the range of recovered materials content levels within which the designated recycled items are currently available." In meeting this provision, EPA will recommend ranges that (1) reflect the best information available to the Agency about the use of postconsumer and other recovered fiber in the manufacture of a designated item and (2) encourage manufacturers to use the maximum amount of postconsumer and recovered fiber without compromising competition or product performance and availability. EPA recommends that procuring agencies use these ranges, in conjunction with their own research into the content of items available to them, to establish their minimum content standards. In some instances, EPA will recommend one level, rather than a range, because the item is universally available at that recommended level. In such cases, EPA recommends that procuring agencies use that level in establishing their minimum content standards.

4. EPA's Methodology for Recommending Postconsumer and Recovered Fiber Content Levels

EPA identified and evaluated pertinent data sources and information regarding the percentages of postconsumer and recovered fiber contained in paper and paper products. Sources included EPA research, responses to the 1990 **Federal Register** request for comment and the 1993 public forum, procuring agency and industry data, manufacturers' information, and other published data. Based on this information and the content levels established in Executive Order 12873, EPA established recommended levels or ranges of levels for paper and paper products.

As previously discussed, whenever feasible, EPA will recommend ranges for both recovered fiber and postconsumer fiber content. The high end of each range will be set at the maximum content currently used in paper and paper products that are available in sufficient quantities, and with adequate competition, to meet procuring agency needs. For many items, this level will be 100% for the recovered fiber component of the two-part content recommendations. The high end of each range will direct procuring agencies toward those levels that will meet the statutory requirement to purchase paper and paper products containing the highest levels of postconsumer fiber practicable. Thus, EPA strongly encourages procuring agencies to specify and seek paper and paper products containing both postconsumer and recovered fiber at levels at or near the high end of the recommended ranges if price and performance meet the procuring agencies' objectives.

The low end of each range will be set at levels that can be met by the simple majority of mills currently producing paper and paper products containing postconsumer and recovered fiber. These levels could also be met by other mills if they decide to purchase or produce pulp made from postconsumer and recovered fiber. For most items, these levels will be higher than the lowest percentage currently in products, in order to provide an incentive for paper mills that now primarily use wood-based fiber or lower levels of postconsumer or recovered fiber to increase their use of postconsumer and recovered fiber in the manufacture of their products. For example, if the majority of mills currently use 20% postconsumer fiber in a writing paper, but a few mills use 10% postconsumer fiber, EPA would recommend 20% as the low end of the range.

In all five major paper and paperboard grades, there are groups of mills that use high levels of postconsumer and recovered fiber and groups of mills that primarily use wood-based fiber, sometimes in conjunction with low percentages of postconsumer and/or recovered fiber. EPA accounted for this diversity in establishing the recommended ranges. As a result, for some items, there is a broad range for postconsumer or recovered fiber content. The high end of these ranges generally reflects the percentages of postconsumer and recovered fiber used by mills that rely on this type of fiber, while the low end of the ranges reflects the percentages of postconsumer and recovered fiber used by mills that rely primarily on wood-based fiber. For many items, the low end of the recovered fiber range is the same percentage as the low end of the postconsumer fiber range. In these instances, all of the recovered fiber used by these mills is postconsumer fiber. This means that the item can contain either all postconsumer fiber (e.g., X% recovered fiber, all of which is postconsumer) or blends of recovered and postconsumer fiber (e.g., 100% recovered fiber, including Y% postconsumer fiber) and still fall within EPA's recommended range.

It is EPA's intention to provide procuring agencies with the best and most current information available to assist them in fulfilling their statutory obligations under RCRA section 6002. To do this, EPA will monitor changes in manufacturing capacity and product content and the progress made by procuring agencies in purchasing paper and paper products with the highest percentages of postconsumer and recovered fiber practicable. EPA will periodically adjust the recommended content ranges to reflect these changes. As larger quantities of paper become available that contain higher levels of postconsumer and recovered fiber, EPA will consider increasing the content levels in its recommendations.

## III. Other Issues Addressed in the Draft Paper Products RMAN

### *A. Measurement of Recovered Fiber Content*

As procuring agencies implemented the 1988 designation of paper and paper products, EPA received inquiries about measurement of recovered fiber content. Today, EPA is addressing the two principal inquiries: (1) Whether postconsumer and recovered fiber content should be measured as a

percentage of fiber weight or total sheet weight and (2) whether mill broke generated by a papermaking process that uses postconsumer or recovered fiber can be included in content calculations. In the draft RMAN, EPA recommends that postconsumer and recovered fiber content be measured as a percentage of the weight of the fiber in paper or a paper product. In addition, EPA wishes to clarify that mill broke generated by a papermaking process that uses postconsumer or recovered fiber can be included in content calculations, to the extent that the feedstock contains materials which would qualify as postconsumer or recovered fiber. These issues are discussed in detail in chapter VI.A of "Draft Paper Products RMAN—Supporting Analyses."

*B. Clarifications and Revisions to Definitions*

Today, EPA also addresses definitional issues raised by procuring agencies, mills and other interested parties since the 1988 paper procurement guideline was issued. Specifically, EPA has been asked (1) whether the definition of "postconsumer" includes printers' over-runs, converters' scrap, and/or over-issue publications, (2) which definition of "recovered materials" applies to the content standards established in Executive Order 12873, and (3) whether a paper product converted from off-specification paper or obsolete inventory contains "recovered material."

EPA discusses these questions in detail in chapter VI.B of "Draft Paper Products RMAN—Supporting Analyses." EPA's responses to the inquiries are as follows. (1) The definition of "postconsumer" materials in RCRA section 6002(h) does not include printers' over-runs, converters' scrap, and/or over-issue publications. (2) Procuring agencies should use the definition of "recovered fiber" in today's draft RMAN when purchasing printing and writing papers in accordance with the content levels established in Executive Order 12873. (3) Because off-specification paper and obsolete inventory that contain no recovered fiber do not meet the statutory definition of "recovered materials," products made from these materials cannot be sold as recycled products. Materials must be repulped, not just recovered, in order to count toward recovered fiber content.

In addition, several commenters suggested that EPA expand the definition of "mill broke" and narrow the definition of "waste paper." In today's draft RMAN, EPA has expanded the mill broke definition to include certain materials that are generated after the completion of the papermaking process, including materials generated in finishing operations. These materials are commonly re-pulped, sold to others for pulping, or otherwise used in or converted to paper products. In addition, in developing the definition of "recovered fiber" from the 1988 "waste paper" definition, EPA has made three significant changes. First, the definition found in section A–7 of the draft RMAN clarifies that materials must be repulped, not just recovered, in order to count toward recovered fiber content. Second, consistent with the revised definition of "mill broke," the definition of "recovered fiber" excludes materials such as obsolete inventory or off-specification product generated at mills after the end of the papermaking process. Third, EPA is clarifying that forest residues do not count toward "recovered fiber" content. See chapter VI.B of "Draft Paper Products RMAN—Supporting Analyses" for a detailed discussion of the draft definitions of "mill broke" and "recovered fiber."

*C. Revisions to Item Listings*

The 1988 paper procurement guideline contained 24 recommended minimum content levels. Today's draft RMAN contains 54 recommended minimum content levels. In addition to revised content recommendations, EPA made the following changes:

- The printing and writing paper recommendations are no longer limited to "high grade bleached" papers.
- The draft RMAN uses new terminology for uncoated printing and writing papers to better reflect the terminology currently used by paper merchants and mills.
- The draft RMAN incorporates the content levels for uncoated printing and writing papers established by Executive Order 12873.
- The draft RMAN includes separate recommendations for wove and kraft envelopes, rather than lumping them into one envelope listing.
- The draft RMAN includes recommendations for supercalendered paper, safety paper, coated printing papers, and bristols.
- The "doilies" listing under the tissue products subcategory has been replaced with a "tray liners" listing in a new Miscellaneous Paper Products subcategory.
- The "Unbleached packaging" and "Recycled paperboard" subcategories have been reorganized into a Paperboard and Packaging subcategory that contains recommendations for corrugated containers, solid fiber boxes, folding cartons, industrial paperboard, miscellaneous paperboard products, carrierboard, and brown papers.

These changes are discussed in detail in "Draft Paper Products RMAN—Supporting Analyses."

*D. Recyclability*

The underlying purpose of RCRA section 6002 is to use the stimulus of governmental purchasing to foster markets for recovered materials. Therefore, EPA encourages materials recovery to conserve valuable natural resources and to provide alternatives to landfilling and incineration. In order to achieve both of these objectives, EPA believes that procuring agencies should consider the impact of their purchases on their recyclable materials collection programs.

Depending on their fiber or other characteristics, some used paper products containing recovered materials may have a wider variety of potential markets and, therefore, may be easier to recycle than others. Certain characteristics can lower the value of collected used paper or limit its reuse as a feedstock for new products. Other characteristics might require adjustments in an agency's recyclables collection program.

For example, "white office paper" is a highly valued recovered material. Depending on its market, a "white office paper" collection program might exclude other office papers that are colored, coated, or contain groundwood. Thus, if a procuring agency decided to purchase a colored paper or a paper containing groundwood for use in office printers and copiers, the agency should expect that these materials would affect the office paper collection program if they are mixed with the white paper. The agency could find that the used paper is recyclable, but that (1) its value is reduced because it is now "mixed paper" rather than "white office paper," or (2) a separate sort is required in order to maintain the value of the white office paper. Alternatively, the agency could find that the mixed paper must be disposed of because there is no market for it in the geographic area in which the agency is located.

Yet other characteristics might make a paper product more recyclable or generate less material because the product is source reduced. For example, manufacturers may be using less packaging or reusable packaging, resulting in less waste.

EPA believes that procuring agencies should consider these impacts prior to purchasing paper products containing recovered materials. Therefore, in section A–6 of today's draft RMAN, EPA

is recommending that procuring agencies consider the effect of their procurement actions on their used paper collection programs by assessing the impact of their decisions on their overall contribution to the solid waste stream.

*E. Use of EPA's Recommendations*

EPA encourages state and local agencies and private sector purchasers to use the recommendations in today's draft RMAN when purchasing paper and paper products. EPA recommends that purchasers establish their minimum content standards at the highest percentages available to them that achieve their price and performance objectives, even if these standards are above EPA's recommended ranges.

EPA has found that some state agencies have been using the Agency's 1988 content recommendations as a starting point in establishing product labeling requirements. While EPA's recommendations were not intended for use as labeling standards, they can be used as an information source for agencies establishing recycled product labeling programs.

EPA cautions persons using EPA's recommendations, whether to establish purchasing specifications or labeling standards, to use them only for the *specific items* for which they were intended. It is not appropriate to analogize from one item in a paper grade (e.g., printing and writing paper, tissue products, paperboard) to another item that could also fall within that grade, without first researching the use of postconsumer and recovered fiber in the other item. The two items could have different performance requirements necessitating different levels of postconsumer or recovered fiber. In addition, one item could be made primarily by mills that use high percentages of postconsumer or recovered fiber, while the other item could be made primarily by mills that use low or no percentages of this fiber.

## IV. Request for Comments

EPA requests comment on the content levels, definitions, and specifications recommendations found in today's draft RMAN. In addition, EPA requests comment or information on the following issues, which are discussed in detail in "Draft Paper Products RMAN—Supporting Analyses:"

*Recommendations for Tissue Products*

- Do government agencies or their contractors purchase specialty tissue products?
- Is postconsumer or other recovered fiber used in the manufacture of specialty tissue products and, if so, in what percentages?
- Can manufacturers of consumer paper napkins and consumer facial tissues that primarily use wood-based fiber produce these items using a minimum of 30% and 20% postconsumer fiber, respectively? If not, what levels of postconsumer fiber can be used in these items?
- Can manufacturers of consumer paper napkins and consumer facial tissues use a range of recovered fiber from 30–100% and 20–100%, respectively?
- Are tray liners available containing percentages of recovered fiber, including postconsumer fiber, other than 100% recovered fiber, including 75% postconsumer fiber?
- Can postconsumer fiber be used in tray liners and meet Food and Drug Administration (FDA) restrictions on migration of contaminants into food?

*Recommendations for Paperboard and Packaging Products*

- Is recovered fiber other than postconsumer fiber used in the manufacture of corrugated containers?
- Are corrugated containers rated at 300 psi or greater available containing more than 30% postconsumer fiber?
- Will the recent increased demand for OCC affect the ability of manufacturers to meet the recommended content levels for corrugated containers?
- Will the imminent availability of additional capacity to make linerboard containing 100% recovered fiber allow manufacturers to exceed the high end of the ranges of recommended content levels for corrugated containers?
- Are there differences in the postconsumer fiber content currently used in coated and uncoated folding cartons?
- Should recommendations for coated and uncoated folding cartons be listed separately because of the differences in their ability to incorporate postconsumer fiber content?
- Will the recent increased demand for OCC affect the availability of folding cartons containing higher percentages of postconsumer fiber?
- Should EPA recommend different content levels for the various industrial paperboard products, based on the specific application(s) for those products?
- Should EPA recommend different postconsumer ranges for coated and uncoated miscellaneous paperboard products, and should there should be different content recommendations based on the specific application(s) of the products?
- Are percentages of postconsumer fiber greater than 15% used in padded mailers? What percentages of recovered fiber other than postconsumer fiber are used in padded mailers?
- Are there different performance characteristics of the two different types of carrierboard (solid unbleached sulfate and recycled paperboard) that would require listing them separately in the final RMAN?
- Is postconsumer or other recovered fiber used in solid bleached sulfate paperboard products, in general, and in food grade items in particular?
- Do procuring agencies purchase solid bleached sulfate paperboard products, either directly or indirectly? If yes, to what extent?
- Should EPA recommend content levels for solid bleached sulfate paperboard products?

*Recommendations for Printing and Writing Papers*

- Do state agency requirements for the paper used to print state checks differ from federal or commercial check specifications and if so, how? What is the availability of safety paper containing recovered and postconsumer fiber that meets state agency requirements?
- What is the performance and availability of greeting card stock containing higher percentages of postconsumer fiber?

Dated: March 8, 1995.

**Elliott P. Laws,**

*Assistant Administrator, Office of Solid Waste and Emergency Response.*

## Appendix—Draft Paper Products Recovered Materials Advisory Notice Contents

Part A—Paper and Paper Products
Section A–1—Printing and Writing Papers
Section A–2—Newsprint
Section A–3—Sanitary Tissue Products
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Part A—Paper and Paper Products

Section A–1—Printing and Writing Papers

Preference Program: EPA recommends that procuring agencies establish minimum content standards expressed as a percentage of recovered fiber, including a percentage of postconsumer fiber. EPA recommends that procuring agencies base their minimum content standards for printing and writing papers on the content levels shown in Tables A–1a, A–1b, and A–1c. Percentages are based on the fiber weight of the product.

TABLE A–1A.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR UNCOATED PRINTING AND WRITING PAPERS

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| Reprographic Paper (e.g., mimeo and duplicator paper, high-speed copier paper, and bond paper*) | 20 | 20 |
| Offset Paper (e.g., offset printing paper*, book paper*, bond paper*) | 20 | 20 |
| Tablet Paper (e.g., office paper such as note pads, stationery* and other writing* papers) | 20 | 20 |
| Forms Bond (e.g., forms, computer printout paper, ledger*) | 20 | 20 |
| Envelope Paper: | | |
| Wove | 20 | 20 |
| Kraft: | | |
| White and colored (including manila) | 10–20 | 10–20 |
| Unbleached | 10 | 10 |
| Cotton Fiber Paper (e.g., cotton fiber papers, ledger*, stationery* and matching envelopes, and other writing* papers) | 50 | 20 |
| Text & Cover Paper (e.g., cover stock, book paper*, stationery* and matching envelopes, and other writing* paper) | 50 | 20 |
| Supercalendered | 10 | 10 |
| Check Safety Paper | 10 | 10 |

*These items can be made from a variety of printing and writing papers, depending on the performance characteristics of the item. Some of the papers are a commodity-type and some are specialty papers. EPA recommends that procuring agencies determine the performance characteristics required of the paper prior to establishing minimum content standards. For example, bond, ledger, or stationery made from cotton fiber paper or a text and cover paper have different characteristics than similar items made from commodity papers.

TABLE A–1b.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR COATED PRINTING AND WRITING PAPERS

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| Coated Printing Paper | 10 | 10 |
| Carbonless | 20 | 20 |

TABLE A–1c.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR BRISTOLS

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| File Folders (manila and colored) | 20 | 20 |
| Dyed Filing Products | 20–50 | 20 |
| Cards (index, postal, and other, including index sheets) | 50 | 20 |
| Pressboard Report Covers and Binders | 50 | 20 |
| Tags and Tickets | 20–50 | 20 |

Section A–2—Newsprint

Preference Program: EPA recommends that procuring agencies establish minimum content standards expressed as a percentage of recovered fiber, including a percentage of postconsumer fiber. EPA recommends that procuring agencies base their minimum content standards for newsprint on the content levels shown in Table A–2. Percentages are based on the fiber weight of the product.

TABLE A–2.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR NEWSPRINT

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| Newsprint | 40–100 | 40–85 |

Section A–3—Tissue Products

Preference Program: EPA recommends that procuring agencies establish minimum content standards expressed as a percentage of recovered fiber, including a percentage of postconsumer fiber. EPA recommends that procuring agencies base their minimum content standards for tissue products on the content levels shown in Table A–3. Percentages are based on the fiber weight of the product.

TABLE A–3.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR TISSUE PRODUCTS

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| Bathroom tissue: | | |
| Commercial/industrial | 100 | 25–60 |
| Consumer | 20–100 | 20–60 |
| Paper towels: | | |
| Commercial/industrial | 100 | 40–60 |
| Consumer | 20–100 | 20–60 |
| Paper napkins: | | |
| Commercial/industrial | 100 | 30–60 |
| Facial tissue: | | |
| Commercial/industrial | 100 | 30 |
| Industrial wipers | 40–100 | 40 |

Section A–4—Paperboard and Packaging Products

Preference Program: EPA recommends that procuring agencies establish minimum content standards expressed as a percentage of recovered fiber, including a percentage of postconsumer fiber. EPA recommends that procuring agencies base their minimum content standards for paperboard and packaging products on the content levels shown in Table A–4. Percentages are based on the fiber weight of the product.

TABLE A–4.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR PAPERBOARD AND PACKAGING PRODUCTS

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| Corrugated containers:* | | |
| (<300 psi) | 40–50 | 40–50 |
| (300 psi) | 30 | 30 |
| Solid Fiber Boxes | 40 | 40 |
| Folding cartons** | 100 | 40–80 |
| Industrial paperboard (e.g., tubes, cores, drums, and cans) | 100 | 45–100 |
| Miscellaneous (e.g., pad backs, covered binders, book covers, mailing tubes, protective packaging) | 90–100 | 75–100 |
| Padded mailers | 5–15 | 5–15 |
| Carrierboard | 25–100 | 15 |
| Brown papers (e.g., wrapping paper and bags) | 5–40 | 5–20 |

*The recovered fiber and postconsumer fiber content is calculated from the content of each component relative to the weight each contributes to the total weight of the box. See Appendix I for an example.

**The recommended content ranges are not applicable to all types of paperboard used in folding cartons. Cartons made from solid bleached sulfate or solid unbleached sulfate contain no or small percentages of postconsumer fiber, depending on the paperboard source.

Section A–5—Miscellaneous Paper Products

Preference Program: EPA recommends that procuring agencies establish minimum content standards expressed as a percentage of recovered fiber, including a percentage of postconsumer fiber. EPA recommends that procuring agencies base their minimum content standards for the listed paper products on the content levels shown in Table A–5. Percentages are based on the fiber weight of the product.

TABLE A–5.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR MISCELLANEOUS PAPER PRODUCTS

| Item | Recovered fiber (percent) | Postconsumer fiber (percent) |
|---|---|---|
| Tray liners | 100 | 75 |

Section A–6—Other Recommendations for Paper and Paper Products

Measurement: EPA recommends that procuring agencies express their minimum content standards as a percentage of the fiber weight of the paper or paper product. EPA further recommends that procuring agencies specify that mill broke cannot be counted toward postconsumer or recovered fiber content, except that procuring agencies should permit mills to count mill broke generated in a papermaking process using postconsumer and/or recovered fiber as feedstock toward "postconsumer fiber" or "recovered fiber" content, to the extent that the feedstock contained these materials. In other words, if a mill uses less than 100% postconsumer or recovered fiber, only a proportional amount of broke can be counted towards postconsumer or recovered fiber content.

Specifications: EPA recommends that procuring agencies review specifications provisions pertaining to performance and aesthetics and revise provisions that can impede use of postconsumer and recovered fiber, unless such provisions are related to reasonable performance standards. Agencies should determine whether performance provisions are

unnecessarily stringent for a particular end use. Agencies also should revise aesthetics provisions—such as brightness, dirt count, or shade matching—if appropriate, consistent with the agencies' performance requirements, in order to allow for a higher use of postconsumer and recovered fiber.

EPA recommends that procuring agencies document determinations that paper products containing postconsumer and recovered fiber will not meet the agencies' reasonable performance standards. Any determination should be based on technical performance information related to a specific item, not a grade of paper or type of product.

EPA recommends that procuring agencies watch for changes in the use of postconsumer and recovered fiber in paper and paper products. When a paper or a paper product containing postconsumer and recovered fiber is produced in types and grades not previously available, at a competitive price, procuring agencies should either revise specifications to allow the use of such type or grade, or develop new specifications for such type or grade, consistent with the agencies' performance requirements.

Recyclability: EPA recommends that procuring agencies consider the effect of a procurement of a paper product containing recovered and postconsumer fiber on their paper collection programs by assessing the impact of their decision on their overall contribution to the solid waste stream.

Section A–7—Definitions

For purposes of the recommendations contained in this Part, terms shall have the following meanings:

"Postconsumer fiber" means:

(1) Paper, paperboard, and fibrous wastes from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; and

(2) All paper, paperboard, and fibrous wastes that enter and are collected from municipal solid waste.

Postconsumer fiber does not include fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

"Recovered fiber" "Recovered fiber" means the following materials:

(1) Postconsumer fiber such as:

(A) Paper, paperboard, and fibrous wastes from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; and

(B) All paper, paperboard, and fibrous wastes that enter and are collected from municipal solid waste.

(2) Fiber derived from printing and converting operations, excluding any paper generated in a paper mill prior to the completion of the paper manufacturing process. "Recovered fiber" includes repulped fiber from dry paper scrap generated after the paper machine reel has been rewound and/or cut into smaller rolls or rough sheets, including but not limited to:

(A) Envelope cuttings, finishing trim, bindery trimmings, and other paper and paperboard resulting from printing, cutting, forming, and other converting operations; and bag, box, and carton manufacturing wastes; and

(B) Repulped finished paper and paperboard from obsolete inventories of paper merchants, wholesalers, dealers, printers, converters, or consumers.

"Mill broke" means any paper or paperboard scrap generated in a mill prior to completion of the papermaking process and/or specific materials generated during finishing operations that occur after the end of the papermaking process. It includes the following materials, whether generated prior to or after the completion of the papermaking process: paper machine trim, offgrade or off-specification rolls (also referred to as rejected, unused stock), culls, stub rolls, side rolls, end rolls, and obsolete inventories of paper and paperboard. Although mill broke is occasionally sold from one mill to another, such a sale does not alter its classification or exclusion from the definition of "recovered fiber."

**Appendix A–1.—Example Calculation of Postconsumer Fiber Content of a Corrugated Container**

C-flute has a take-up factor of approximately 1.44, which means that for each one foot of combined corrugated board there is 1.44 feet of fluted medium. This factor is used to calculate the weight of paperboard in a given area of combined corrugated board, from which the basis weight of the board is derived. Each linerboard contributes 35% of the basis weight (42/121.4). The medium contributes 30% of the total basis weight (37.4/121.4).

| | Board basis weight (lbs/MSF) |
|---|---|
| Linerboard #1 | 42×1.00=42.0 |
| Medium | 26×1.44=37.4 |
| Linerboard #2 | 42×1.00=42.0 |
| Combined Board Weight | 121.4 lbs/MSF |

If the linerboard used has 20% postconsumer fiber and the medium has 80% postconsumer fiber, the resulting total postconsumer fiber content of the containerboard is as follows:

Linerboard: .35×.20=.07×2=.14 (or 14%)

Medium: .30×.80=.24 (or 24%)

Total postconsumer fiber: .14+.24=.38 (or 38%)

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