ENVIRONMENTAL PROTECTION AGENCY

[SWH–FRL–5510–4–/EPA530–Z–96–005]

Paper Products Recovered Materials Advisory Notice

AGENCY: U.S. Environmental Protection Agency.

ACTION: Notice of availability of final document.

SUMMARY: EPA is providing notice of the availability of the final Paper Products Recovered Materials Advisory Notice (RMAN) and supporting materials. Under Section 6002 of the Resource Conservation and Recovery Act, which establishes a buy-recycled program for federal agencies, EPA designates items that are or can be made with recovered materials and provides recommendations for government procurement of these items. The Agency is revising the 1988 recommendations to government procuring agencies for purchasing paper and paper products containing recovered materials. The final Paper Products RMAN addresses issues raised by paper manufacturers, merchants, and purchasers as they implemented the 1988 recommendations, and incorporates minimum content standards for uncoated printing and writing papers established by Executive Order. This action will promote paper recycling by using government purchasing to expand and maintain markets for recovered paper.

ADDRESSES: Supporting materials are available for viewing in the RCRA Information Center (RIC), located in Crystal Gateway I, 1235 Jefferson Davis Highway, First Floor, Arlington, Virginia. The Docket Identification Number is F–96–PPRF–FFFFF. The RIC is open from 9:00 am to 4:00 pm, Monday through Friday, excluding federal holidays. To review docket materials, it is recommended that the public make an appointment by calling 703 603–9230. The public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost $0.15 per page. The index of and some supporting materials are also available electronically. See Section IV of the **SUPPLEMENTARY INFORMATION** section for information on accessing the materials electronically.

FOR FURTHER INFORMATION CONTACT: For general information, please contact the RCRA Hotline at 800 424–9346, TDD 800 553–7672 (hearing impaired), or 703 412–9810 (Washington, DC metropolitan area).

For more detailed information regarding the recommendations in today's notice, contact Dana Arnold of the Office of Solid Waste at 703 308–7279 or at U.S. Environmental Protection Agency (5306W), 401 M Street, S.W., Washington, DC 24060, or at e-mail: arnold.dana@epamail.epa.gov.

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I. Authority

The final Paper Products Recovered Materials Advisory Notice (Paper RMAN) 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. Agency's Response to Public Comments

Today, the U.S. Environmental Protection Agency (EPA or the Agency) is publishing a final Paper 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).

EPA received over 50 comments on the draft Paper RMAN, which was published in the Federal Register on March 15, 1995 (see 50 FR 14181–14191). In addition to responding to EPA's requests in the draft Paper RMAN for comment on certain issues, the commenters also raised the following issues:

(1) Definition of ''postconsumer fiber,''

(2) Definitions of ''recovered fiber'' and ''mill broke,''

(3) Inclusion of recommendations for consumer (at-home) tissue products, and

(4) Recommendations for newsprint, corrugated containers, carrierboard, and commercial/industrial tissue products.

A summary of all comments received and the Agency's response to these comments are provided in ''Final Summary of Comments on the Proposed Paper Products Recovered Materials Advisory Notice'' and ''Final Paper Products Recovered Materials Advisory Notice—Response to Comments,'' respectively. The response to comments document also provides discussions of changes EPA made to the March 1995 draft recommendations, other than those discussed in this notice. See also ''Draft Paper Products RMAN—Supporting Analyses,'' February 1995, for additional discussions of the recommendations in the Paper RMAN. Section IV of this preamble provides information on viewing and obtaining copies of these documents.

A. Definition of ''Postconsumer Fiber''

In the draft Paper RMAN, EPA defined ''postconsumer fiber'' based on RCRA section 6002(h)(1)'s definition of ''postconsumer recovered materials.'' This is the same definition EPA used in the 1988 paper procurement guideline. In the draft Paper RMAN, however, EPA further stated that the definition of ''postconsumer fiber'' excludes ''fiber derived from printers' over-runs, converters' scrap, and over-issue publications.'' EPA has consistently taken the position since 1988 that postconsumer fiber does not include these recovered papers.

Several commenters argued that EPA should adopt a broader postconsumer definition for its recommendations. Most of these commenters believe that over-issue publications, such as newspapers and magazines, are postconsumer materials. Some of the commenters also stated that printers' over-runs should be included in the postconsumer definition. The commenters stated that the source of recovered paper is irrelevant to the pulp and papermaking processes because printed materials must be handled and pulped in the same way, regardless of source. The commenters also stated that it is not always possible to determine the origin of a bale or truckload of recovered paper and that there is no scientific means of testing paper to determine whether or not it is from a postconsumer source. They further claimed that the use of the narrower definition adds to the costs of manufacturing recycled paper because it

is more costly to track postconsumer materials.

EPA previously discussed these arguments in the preamble to the draft Paper RMAN (60 FR 14185, March 15, 1995) and in ''Draft Paper Products RMAN—Supporting Analyses''. Commenters simply repeated past arguments without providing new information to justify expanding the postconsumer definition. As explained in the following discussion, EPA continues to believe that its interpretation of RCRA section 6002 is reasonable.

RCRA section 6002(c) requires each procuring agency that purchases an EPA-designated item to procure such item containing the highest levels of recovered material practicable. In the case of paper, a procuring agency must procure a designated paper item composed of the ''highest percentage of postconsumer recovered materials.'' RCRA section 6002(h) defines ''recovered materials'' in the case of paper products. Paper recovered materials include two subsets: postconsumer materials, defined in (h)(1), and manufacturing and other recovered materials, defined in (h)(2).

Of the three types of material in question (converting scrap, printers' over-runs, and over-issue publications), one—converting scrap—clearly is not a postconsumer material. RCRA section 6002(h) specifically lists it with manufacturing and other recovered materials in subset (h)(2).

With respect to the other two types of material, over-issue publications and printers' over-runs, RCRA section 6002(h)(1) suggests two clear benchmarks for determining whether these are postconsumer materials. First, postconsumer paper includes paper that has passed through its end-usage as a consumer item. This includes conventional discarded paper (e.g., old newspapers and magazines) from retail stores, homes, and office buildings. Second, postconsumer paper also includes paper recovered from municipal solid waste. Thus, the statute would seem to limit postconsumer recovered newspapers and magazines to those publications collected from the consumer *before* they enter the municipal solid waste stream as well as that recovered from the municipal solid waste stream *after* collection. Over-issue publications and printers' over-runs which never reach a consumer do not meet either of these criteria.

The examples in the RCRA section 6002(h) definition appear to make a distinction between recovered materials and postconsumer recovered materials based on whether the paper is received by an ultimate consumer. Thus, for example, paper, paperboard and fibrous materials may be postconsumer paper after passing through their intended end uses as a consumer item. If, however, that same paper, paperboard or fibrous material never reaches a consumer, it remains a preconsumer recovered material.

In addition, a reading of the types of materials listed in section 6002(h)(1) suggests that over-issue publications and over-runs are not postconsumer materials. Among the examples of postconsumer paper given in the statute are ''old newspapers.'' Because publishers' over-runs and over-issue publications are clearly not ''old'' newspapers or ''old'' magazines, they are not a postconsumer material. Moreover, while section 6002(h) does not specifically list printers' over-runs and over-issue publications as either ''postconsumer materials'' or other recovered materials, it does provide that ''finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others [emphasis added]'' are not postconsumer materials. Thus, EPA believes that over-issue publications and printers' over-runs are specifically listed in RCRA section 6002 as preconsumer recovered materials.

Finally, one commenter stated that the postconsumer definition used in the draft Paper RMAN is contrary to the ''recovered materials'' definition in RCRA. The Agency disagrees with this comment. Congress defined ''postconsumer recovered materials'' in RCRA section 6002(h)(1). The postconsumer definition is the first subset of the ''recovered materials'' definition that Congress directs agencies to use when purchasing paper and paper products. Thus, EPA's use of the postconsumer definition is consistent with the RCRA definition.

B. Definitions of ''Recovered Fiber'' and ''Mill Broke''

In the draft Paper RMAN, EPA provided revised definitions of ''recovered fiber'' and ''mill broke.'' ''Recovered fiber'' identifies materials that can be counted toward the total recycled content of paper or paperboard. ''Mill broke'' identifies materials generated at a paper mill that would not be counted either as total recycled content or as postconsumer content under EPA's recommended content levels.

The definitions in the draft Paper RMAN were based on EPA's 1988 definitions of ''waste paper'' and ''mill broke.'' (In the 1988 paper procurement guideline, EPA had established a ''waste paper'' category to promote the use of postconsumer and other recovered paper in the manufacture of printing and writing papers.) EPA made three changes to these 1988 definitions in developing the Paper RMAN definitions. First, the following mill-generated materials were moved from ''waste paper'' to ''mill broke'': offgrade or off-specification rolls, converting scrap, culls, stub rolls, side rolls, end rolls, and obsolete inventories. In other words, these materials could no longer be counted toward the total recovered fiber content levels recommended in the Paper RMAN. EPA stated that these materials are commonly re-pulped, sold to others for pulping, or otherwise used in or converted to paper products. Allowing these materials to count toward recovered fiber content does not provide an incentive for mills to use materials recovered from solid waste and, therefore, does not meet the RCRA objective of increasing markets for postconsumer materials.

Second, EPA specified that materials must be re-pulped. As a result, a person cannot purchase an off-specification or obsolete roll, convert it into cut sheets or note pads, and sell it as paper containing ''recovered materials'' or paper ''meeting EPA's guidelines.''

Third, EPA corrected an error in the 1988 definition of ''waste paper'' by deleting the words ''forest residues'' from the phrase introducing the non-postconsumer materials that count as ''recovered fiber.'' EPA had erroneously included the words ''forest residues'' in the introductory phrase in the 1988 definition of ''waste paper,'' although the Agency had intended to exclude these materials from the definition.

While some commenters agreed with the ''recovered fiber'' and ''mill broke'' definitions, most commenters opposed the narrowing of the ''recovered fiber'' definition and the related expansion of the ''mill broke'' definition. Commenters pointed out that some of the materials that EPA included in the ''mill broke'' definition are specifically listed in the RCRA section 6002(h) definition of ''recovered materials.'' Therefore, the commenters stated, it is contrary to RCRA to include these materials in the definition of ''mill broke.'' Commenters also stated that all of the industry data previously provided to EPA were based on the 1988 definitions and, therefore, would be incorrect. Further, commenters stated that the excluded materials generally are easier to use because they are homogenous, clean, and without printing, whereas postconsumer materials are heterogenous, sometimes

contaminated with food residue and other contaminants, and contain printing. For this reason, mills would not substitute postconsumer materials for the excluded materials, but would instead seek out other preconsumer materials. Finally, commenters stated that the paper industry has based its investments and strategies for manufacturing recycled paper on the 1988 definitions and has invested billions of dollars in recycling, so there is no reason to change course now when the definitions have been working to increase domestic recycling capacity.

In light of the comments, EPA has reconsidered the definitions used in the draft Paper RMAN and has concluded that they are inconsistent with RCRA section 6002(h). EPA also has concluded that industry commenters are correct that retaining the definitions would require the Agency to conduct new research into the recovered fiber content of products. Further, EPA believes that, because the materials in question represent a small percentage of all materials recovered and used, the definitions would not make a significant contribution to expanding the use of postconsumer materials. For these reasons, EPA will retain the 1988 definition of ''mill broke'' in the final Paper RMAN. EPA also is retaining the 1988 definition of ''waste paper'' as the basis of the definition of ''recovered fiber.'' However, the Agency has modified the ''recovered fiber'' definition by adding that the material must be re-pulped and by excluding the words ''forest residues.''

C. Inclusion of Recommendations for Consumer (At-home) Tissue Products

In the draft Paper RMAN, EPA recommended content levels for consumer (at-home) bathroom tissue and paper towels (see Table A–3 in 60 FR 14190, March 15, 1995). Based on the data it had gathered on tissue products, EPA concluded that the paper industry produced two distinct product lines: consumer (at-home) tissue products and commercial/industrial (away-from-home) products. While procuring agencies generally would not purchase consumer tissue products and, consequently, would not be subject to the purchasing requirements under RCRA section 6002 with respect to these products, EPA determined that the Paper RMAN was a useful vehicle for disseminating information on another market for materials recovered from the solid waste stream. RCRA section 8003(e) specifically directs EPA to provide information on resource recovery.

Commenters opposed the inclusion of recommendations for consumer bathroom tissue and paper towels. They stated that the use of postconsumer and recovered fiber in consumer tissue products is driven by customer demand and mill economics and does not need additional stimulus from EPA recommendations. Several of the commenters stated that customer surveys and product shelf tests indicated that consumers resist recycled content consumer tissue products. They also noted that government agencies do not purchase consumer tissue products and that, therefore, EPA had exceeded its authority by recommending content levels for these products.

EPA believes that it did not exceed its authority under RCRA by recommending content levels for consumer tissue products. RCRA section 6002 directs EPA to provide guidance regarding the use of postconsumer materials in paper products. Moreover, as noted above, EPA has general authority under RCRA section 8003 to provide information about the use of recovered materials in products.

EPA's intent in recommending content levels for consumer tissue products was to encourage manufacturers producing these items with postconsumer and other recovered fiber. EPA policy has been to recommend content levels for paper products not purchased by government agencies if those recommendations would advance recycling and were supported by the product manufacturers. However, given the absence of any RCRA section 6002 obligations with respect to consumer tissue products and concern that EPA's action would, in fact, adversely affect the market for such products, EPA is not including recommendations for consumer tissue products in the final Paper RMAN.

D. Recommendations for Newsprint, Corrugated Containers, Carrierboard, and Commercial/Industrial Tissue Products

In the March 15, 1995 Federal Register, EPA described its methodology for establishing the ranges of recovered and postconsumer fiber recommended in the draft Paper RMAN (60 FR 14186). EPA stated that 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. 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. Comments indicated that the low end of the recommended ranges for newsprint, corrugated containers, carrierboard, and commercial/industrial tissue products did not reflect the fiber levels being used by a simple majority of mills at that time.

1. Newsprint

In the draft Paper RMAN, EPA recommended that newsprint contain 40–100% recovered fiber, including 40–85% postconsumer fiber (see Table A–2 in 60 FR 14189, March 15, 1995). Commenters stated that the low end of EPA's recommended ranges, 40%, is too high and does not reflect the content currently used by a simple majority of North American newsprint mills. In evaluating these comments, EPA researched the current postconsumer content of newsprint manufactured by 34 U.S. and Canadian mills and found that the majority of mills use about 20% postconsumer fiber.

Based on this additional information, and consistent with the methodology described in the draft Paper RMAN, EPA is revising the recommended ranges for newsprint in the final RMAN to 20–100% recovered fiber and 20–85% postconsumer fiber. EPA believes that government procuring agencies will continue to be able to purchase newsprint containing higher levels of both postconsumer and other recovered fiber. EPA believes that some private sector purchasers also will be able to purchase newsprint containing high levels of both postconsumer and other recovered fiber, but others will not. These other purchasers should seek newsprint containing lower levels of both postconsumer and other recovered fiber, consistent with EPA's recommended ranges, rather than simply purchasing newsprint containing no recovered fiber.

2. Corrugated Containers

In the draft Paper RMAN, EPA recommended that corrugated containers with a strength rating of less than 300 pounds per square inch (<300 psi) contain 40–50% recovered fiber, including 40–50% postconsumer fiber. EPA also recommended that corrugated containers with a strength rating of 300 psi contain 30% recovered fiber, all of which is postconsumer fiber (see Table A–4 in 60 FR 14190, March 15, 1995).

Commenters questioned the low end of the ranges and indicated that EPA's data regarding the postconsumer content of corrugating medium did not reflect what the majority of mills currently use. Commenters provided

current information about the percentages of postconsumer and recovered fiber used in corrugated containers. The data confirmed that at least some mills could meet the ranges recommended in the draft Paper RMAN. Using new data submitted by commenters about the current postconsumer content of corrugating medium, and consistent with the methodology described in the draft Paper RMAN, EPA re-calculated the content of corrugated containers and concluded that the low end of the recommended ranges should be 25%. Therefore, in Table A–4 of the final Paper RMAN, EPA recommends that corrugated containers (<300 psi) contain 25–50% recovered fiber, including 25–50% postconsumer fiber and that corrugated containers (300 psi) contain 25–30% recovered fiber, including 25–30% postconsumer fiber.

3. Carrierboard

In the draft Paper RMAN, EPA recommended that carrierboard (which is a type of paperboard used to package multi-packs of beverages containers) contain 25–100% recovered fiber, including 15% postconsumer fiber (see Table A–4 in 60 FR 14190, March 15, 1995). The two manufacturers of unbleached kraft carrierboard commented that, due to shortages of old corrugated containers (OCC), the postconsumer fiber content of their product currently was 10%. The manufacturers previously had used 15% postconsumer fiber but were experiencing problems obtaining adequate supplies of OCC. Based on this information, and consistent with the methodology for establishing the low end of the ranges described in the draft Paper RMAN, EPA is changing the postconsumer fiber recommendation for carrierboard in the final Paper RMAN to a range of 10–15%. EPA is making a corresponding revision to the recovered fiber range, 10–100%. Purchasing agencies should note that, when OCC supplies are adequate, the manufacturers should be able to provide carrierboard containing 15% postconsumer fiber.

4. Commercial/Industrial Tissue Products

In the draft Paper RMAN, EPA recommended that commercial/industrial sanitary tissue products contain 100% recovered fiber, including varying ranges of postconsumer fiber (see Table A–3 in 60 FR 14190, March 15, 1995). EPA recommended a 100% recovered fiber level, rather than a range, because the Agency's data indicated that most manufacturers produced tissue products containing 100% recovered fiber.

Commenters stated that EPA's data on commercial/industrial tissue products were incorrect. The commenters stated that many of the tissue manufacturers produce one product line containing 100% recovered fiber, but this represents only a small fraction of their overall product lines. The commenters also stated that there is not a sufficient supply of tissue products containing 100% recovered fiber to ensure product availability and competition or to supply the broader, commercial (non-government) market. In addition, they stated that, even if they wanted to re-formulate their product lines to contain 100% recovered fiber, they would not be able to do so, because they currently are experiencing shortages and/or high prices for the grades of recovered paper used in tissue products. The commenters submitted new data to substantiate their comments.

In the supporting analyses to the draft Paper RMAN, EPA stated that there is great variability in the postconsumer and recovered fiber usage among tissue producers. The commenters' data confirm this variability. In fact, commenters demonstrated that some tissue mills have integrated pulp and papermaking operations and use small percentages of postconsumer and recovered fiber combined with wood-based pulp. Others rely entirely on postconsumer and recovered fiber. EPA believes that commenters demonstrated that the Agency should recommend a range for the recovered fiber content of tissue products. Adding ranges will provide flexibility to all tissue mills when fiber supplies are tight and will allow more mills to compete, thereby encouraging greater usage of postconsumer fiber.

Commenters proposed that EPA retain the 1988 postconsumer-only content recommendations in the final Paper RMAN, rather than two-part content recommendations. The commenters stated that there is an inadequate supply of recovered paper for tissue mills to meet the postconsumer fiber ranges recommended in the draft Paper RMAN and provided data to support their comments.

EPA continues to believe that the use of two-part content levels will result in greater usage of postconsumer materials by all tissue mills than will postconsumer-only levels because, as stated in the March 15, 1995 Federal Register notice (60 FR 14185), mills will use postconsumer fiber to meet both some of their total recovered fiber needs and their postconsumer fiber needs.

Aggregate data provided by commenters and EPA's conversations with tissue manufacturers indicate that the majority of mills can meet the 1988 recommended content levels for bathroom tissue, paper towels, and paper napkins.

EPA's 1988 recommended content level for facial tissue was 5% postconsumer fiber. EPA requested additional information from the commenters regarding the postconsumer fiber content of facial tissue. The additional information is discussed in ''Final Paper Products RMAN—Response to Comments.'' EPA believes that the information supports a postconsumer fiber range of 10–15% for facial tissue.

Based on the original comments and the additional information about facial tissue, EPA is recommending the following levels for commercial/industrial tissue products in the final Paper RMAN:

- Bathroom tissue: 20–100% recovered fiber, including 20–60% postconsumer fiber,
- Paper towels: 40–100% recovered fiber, including 40–60% postconsumer fiber,
- Paper napkins: 30–100% recovered fiber, including 30–60% postconsumer fiber, and
- Facial tissue: 10–100% recovered fiber, including 10–15% postconsumer fiber.

III. Revision to Executive Order 12873

Section 504 of Executive Order 12873 (58 FR 54916, October 22, 1993) established postconsumer content standards for selected uncoated printing and writing papers. The Executive Order specified a 20% postconsumer content for high speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, and white wove envelopes, and a standard of 50% recovered materials, including 20% postconsumer materials, for writing and office paper, book paper, cotton fiber paper, and text and cover paper. EPA incorporated these content levels into its recommendations for printing and writing papers in the draft Paper RMAN. (As explained in ''Draft Paper Products RMAN—Supporting Analyses,'' EPA used slightly different terminology in the draft Paper RMAN than that used in the Executive Order to reflect the way in which terms are currently used by paper mills, vendors, and procuring agencies.)

On March 25, 1996, President Clinton amended section 504 to delete the 50% recovered materials standard. (See Executive Order 12995, 61 FR 13645, March 28, 1996.) As a result, the

Executive Order now establishes a 20% postconsumer content level for all of the named printing and writing papers. EPA has revised Table A–1a in the final Paper RMAN accordingly.

IV. Supporting Materials and Accessing Internet

The index of supporting materials is available in the RCRA Information Center (RIC) and on the Internet. The address and telephone number of the RIC are provided in **ADDRESSES** above. The following supporting materials are available on the Internet:

Final Summary of Comments on the Proposed Paper Products Recovered Materials Advisory Notice, prepared for U.S. EPA by Eastern Research Group, July 27, 1995, 64 pages.

Draft Paper Products RMAN—Supporting Analyses, Office of Solid Waste, U.S. EPA, February 1995, 86 pages.

Final Paper Products Recovered Materials Advisory Notice —Response to Public Comments, Office of Solid Waste, U.S. EPA, April 1996, 64 pages.

Copies of the following supporting materials are available for viewing at the RIC only:

Memorandum regarding the Status of Over-Issue Publications from Richard T. Witt, Attorney, Solid Waste and Emergency Response Division, Office of General Counsel, to Robert W. Dellinger, Associate Division Director, Municipal & Industrial Solid Waste Division, Office of Solid Waste, February 9, 1996, 4 pages.

Minutes, *Ex Parte* Meeting Between EPA and The Tissue Producers Coalition, July 07, 1995, 4 pages.

Memorandum to the Record, Final Paper Products RMAN, re Market Share of Commercial/Industrial Tissue Market, March 12, 1996, 2 pages.

Minutes, *Ex Parte* Meeting Between EPA and Newsprint Manufacturers, February 13, 1996, 3 pages.

''Research on Use of Postconsumer Materials in Newsprint Manufacturing,'' prepared for U.S. EPA by Eastern Research Group, October 25, 1995, 4 pages.

''Meeting Average Recycled Content Newsprint Goals in the Newspaper Publishing Industry,'' Final Report, prepared for U.S. EPA by Eastern Research Group, December 18, 1995, 5 pages.

''Use of Recovered Fiber in Selected Bristols,'' Final Report, prepared for U.S. EPA by Eastern Research Group, December 18, 1995.

Letter to Dana Arnold regarding machine finished uncoated groundwood paper, American Forest & Paper Association, Sara Freund, February 13, 1996, 1 page.

Minutes, *Ex Parte* Meeting Between EPA and Representatives of Mead Corporation, July 18, 1995, 2 pages.

Follow these instructions to access the information electronically:

Gopher: gopher.epa.gov
WWW: http://www.epa.gov
Dial-up: 919 558–0335

The materials can be accessed off the main EPA Gopher menu, in the directory EPA Offices and Regions/Office of Solid Waste and Emergency Response (OSWER)/Office of Solid Waste (RCRA)/[Non-Hazardous Waste—RCRA Subtitle D/Procurement/Paper].

FTP: ftp.epa.gov
Login: anonymous
Password: your Internet address
Files are located in /pub/gopher/OSWRCRA.

V. Use of EPA's Recommendations

EPA encourages state and local agencies to use the recommendations in today's final Paper RMAN when purchasing paper and paper products. EPA also encourages private sector purchasers to use the information provided by EPA 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 exceed EPA's recommended ranges. If a product is not available at a competitive price and at a content level at the high end of EPA's recommended ranges, purchasers should set their standards at the highest levels available to them that meet their price and performance objectives, using the recommended ranges 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.

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.

Dated: May 15, 1996.

Elliott P. Laws,
Assistant Administrator,
Office of Solid Waste and Emergency Response.

Final Paper Products Recovered Materials Advisory Notice

This Paper Products Recovered Materials Advisory Notice (Paper RMAN) contains EPA's recommendations to procuring agencies for purchasing paper and paper products in compliance with section 6002 of the Resource Conservation and Recovery Act of 1976 (RCRA). These recommendations replace the recommendations found in EPA's 1988 paper procurement guideline, 40 CFR Part 250 (53 FR 23545, June 22, 1988). These recommendations also replace the recommendations found in Part A of EPA's 1995 RMAN (60 FR 21388–21389, May 1, 1995). The contents of this Paper RMAN consist of the Part A, Paper and Paper Products, sections listed below.

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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. The content

levels in the tables should be read as X% recovered fiber, including Y% postconsumer fiber and *not* as X% recovered fiber plus Y% postconsumer fiber. Where the content level is the same in both columns (e.g., 20% in both the recovered fiber and postconsumer fiber columns), this means that EPA is recommending that agencies establish identical content levels for both postconsumer and recovered fiber.

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

Item	Recovered fiber (%)	Postconsumer fiber (%)
Reprographic Paper (e.g., mimeo and duplicator paper, high-speed copier paper, and bond paper)[1]	20	20
Offset Paper (e.g., offset printing paper,[1] book paper*, bond paper[1])	20	20
Tablet Paper (e.g., office paper such as note pads, stationery[1] and other writing[1] papers)	20	20
Forms Bond (e.g., forms, computer printout paper, ledger)[1]	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,[1] stationery[1] and matching envelopes, and other writing[1] papers)	20	20
Text & Cover Paper (e.g., cover stock, book paper[1], stationery[1] and matching envelopes, and other writing[1] paper)	20	20
Supercalendered	10	10
Machine finish groundwood	10	10
Papeteries	20	20
Check Safety Paper	10	10

[1] 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 & 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 (%)	Postconsumer fiber (%)
Coated Printing Paper	10	10
Carbonless	20	20

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

Item	Recovered fiber (%)	Postconsumer fiber (%)
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. The content levels in the table should be read as X% recovered fiber, including Y% postconsumer fiber and *not* as X% recovered fiber plus Y% postconsumer fiber.

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

Item	Recovered fiber (%)	Postconsumer fiber (%)
Newsprint	20–100	20–85

Section A–3—Commercial/Industrial Sanitary 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 commercial/industrial tissue products on the content levels shown in Table A–3. Percentages are based on the fiber weight of the product. The content levels in the table should be read as X% recovered fiber, including Y% postconsumer fiber and *not* as X% recovered fiber plus Y% postconsumer fiber.

TABLE A–3.—RECOMMENDED RECOVERED FIBER CONTENT LEVELS FOR COMMERCIAL/INDUSTRIAL SANITARY TISSUE PRODUCTS

Item	Recovered fiber (%)	Postconsumer fiber (%)
Bathroom tissue	20–100	20–60
Paper towels	40–100	40–60
Paper napkins	30–100	30–60
Facial tissue	10–100	10–15
General purpose 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. The content levels in the table should be read as X% recovered fiber, including Y% postconsumer fiber and *not* as X% recovered fiber plus Y% postconsumer fiber. Where the content level is the same in both columns (e.g., 40% in both the recovered fiber and postconsumer fiber columns), this means that EPA is recommending that agencies establish identical content levels for postconsumer and recovered fiber.

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

Item	Recovered fiber (%)	Postconsumer fiber (%)
Corrugated containers: [1]		
(<300 psi)	25–50	25–50
(300 psi)	25–30	25–30
Solid Fiber Boxes	40	40
Folding cartons[2]	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[3]	10–100	10–15
Brown papers (e.g., wrapping paper and bags)	5–40	5–20

[1] 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.

[2] 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.

[3] Carrierboard made from unbleached kraft contains up to 25% recovered fiber, while carrierboard made from recycled paperboard contains up to 100% recovered fiber.

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. The content levels in the table should be read as 100% recovered fiber, including X% postconsumer fiber and *not* as 100% recovered fiber plus Y% postconsumer fiber.

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

Item	Recovered fiber (%)	Postconsumer fiber (%)
Tray liners	100	50–75

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'' means the following materials:

(1) Postconsumer fiber such as:

(A) Paper, paperboard, and fibrous materials 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 materials that enter and are collected from municipal solid waste, and

(2) Manufacturing wastes such as——

(A) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

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

''Mill broke'' means any paper waste generated in a paper mill prior to completion of the papermaking process. It is usually returned directly to the pulping process. Mill broke is excluded 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

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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