

**Paper Purchase and Use on Campus
Report and Recommendations
July 15, 2000**

Submitted to: President Williams and the President=s Council

Submitted by: Ithaca College=s Resource and Environmental Management Program

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Executive Summary

Nearly all actions and choices that we take as individuals and as a community, the Ithaca College community, have consequences with respect to the environment. The purpose of this document is to review one aspect of the College=s purchasing procedures, with respect to its environmental consequences and to recommend modifications of the current procedures to the College Administration. This review, conducted by a subcommittee of the College=s Resource and Environmental Management Program (REMP), which is comprised of staff, faculty and students, focuses on the purchasing aspect of paper acquisition and disposal. The reason that this aspect was selected is in part because of the sheer volume of paper that is purchased (~120 tons), used, and discarded (~200 tons) annually. Also, the availability of purchasing options with lower environmental impact, such as recycled content papers, gave promise that these options may be easily implemented.

Although many other academic institutions and federal agencies have mandated purchase of recycled paper based solely on the reduced environmental impact, it is recognized that this reason alone may not be sufficiently strong to result in a major change in policy at Ithaca College. A major change in the type of paper purchased and used at the College might be difficult if recycled content paper is more expensive and susceptible to jamming in copiers, printers and Fax machines than the Avirgin@ paper currently used. Therefore, the subcommittee determined the quantity of different papers currently purchased by the IC General Services Administration, investigated the economic cost and environmental benefits of paper alternatives with greater recycled content, tested the performance of recycled content papers in copiers, printers, and FAX machines, and surveyed the attitudes and awareness of students, staff, and faculty with respect to paper use.

Based on the research of this subcommittee, it is evident that there is a critical need to address this issue at the individual and the administrative level (the number of copies made on campus has increased by over 5 million in the last 10 years) and a strong desire to do so within the IC community to develop a more environmentally responsible program for paper purchase and use, and that doing so would have only negligible, if any, costs to the College. While purchase of recycled content paper may cost the College a small amount more (\$7,500 total) than it currently spends for a given volume of paper, this cost could be more than offset by a campaign to reduce paper use. The economic costs have become marginal, since recycled content paper (30% post-consumer) currently costs only 10% more than virgin paper. For this minimal increase in cost, the College would lessen its environmental impact by 1500 trees, over a million gallons of water use, the equivalent of 8,500 gallons of gasoline use, and 440 cubic yards of land-filled material. We therefore believe that the College should adopt a policy of purchasing 30% post-consumer paper as its primary paper product.

I. Introduction

Throughout the world environmental awareness is growing tremendously. As this awareness increases, so does the concern and understanding that vital changes are needed in order to redirect the path of humanity toward a more sustainable one. Institutions across the globe are responding to this growing environmental concern by adopting environmentally sound technologies, policies, and practices, often finding that doing so is not only better for the environment, but also very cost-effective. Ithaca College needs to join other campuses in this effort by continuing to take steps in order to minimize our impact on the environment.

In the past, steps have been taken toward this goal. Nearly a decade ago the Resource and Environmental Management Program (REMP) was established by a number of interested students and staff. Since then, with Dana interns playing an integral role, REMP has developed both recycling and composting programs distinguished as among the top in the country. However, even with the success of these programs, there is still much room for improvement.

REMP promotes awareness of environmental concerns, resource management, recycling, and conservation; implements new programs that benefit the environment; educates the College community and the general public about the need to preserve the environment; and manages the College's waste stream in a cost-effective and environmentally sound manner. REMP began as a result of increased interest by students in the College's recycling program. Formed in 1991 to increase the scope of resource management from just recycling to include composting, energy conservation and source reduction, it is a division of the Office of Physical Plant, which coordinates and funds it.

The initial effort to implement a recycling program began with the collection of office paper in three academic buildings. Today, recycling is campus wide and includes all types of paper and almost all types of containers. Stringent goals and dedicated members of the campus community have made for an extremely successful program that continues to improve each year.

While REMP=s achievement in establishing a highly successful recycling program is noteworthy, it is only one component of an environmentally responsible program with respect to paper use. Thus, while the College continues to recycle a greater volume of paper every year, it also uses an even greater volume of paper every year, despite the coming of the electronic age. Most of the paper that the College is Avirgin paper@, which does not contain any recycled content. Thus, the College is currently neither contributing to reduce the demand for virgin paper, nor helping to expand the market for recycled content products. For this reason, we have focused our efforts for the past year on the development of a more comprehensive paper purchase, use, and recycling program.

Based on market research, a pilot test of recycled content paper, surveys of students, staff and faculty, and an evaluation of purchasing policies at similar institutions and agencies, it is evident that there is a strong desire within the IC community to develop a more environmentally responsible program for paper purchase, and that doing so would have only negligible, if any, costs to the College.

II. Existing paper purchasing program

1. Paper purchase

In 1998, the college purchased 123.3 tons of (8.5 x 11") paper to be used for copying and printing (this includes the duplicating centers). The majority of this paper (88.15 tons) was Avirgin paper@ with no recycled content. Over 35 tons of recycled content paper was purchased primarily as 20% recycled content, colored paper. Unfortunately, data on the volume of paper purchased in previous years is not available for comparison.

2. Paper use

Despite the entrance to the age of electronic communication of email and the World Wide Web, paper use on campus has increased dramatically over the past 10 years. As shown in Table 1, the combined total of copies made in office copiers and those at the duplicating center has increased by over 5 million copies in the last 10 years, representing an increase of more than 40%. The number of copies that we now produce on campus translates into more than 3000 copies per students that we serve per year.

Table 1. Increase in paper copies made at Ithaca College in the last 10 years			
<i>Location</i>	<i>~1989-90</i>	<i>1997-98</i>	<i>Increase</i>
Duplicating Center	6,138,000 ^a	10,100,000	3,962,000 (65%)
Office Copiers	5,627,000 ^b	6,740,000	1,113,000 (20%)
Total	11,765,000 ^c	16,840,000	5,075,000 (43%)

^a - data from 1988-89

^b - data from 1990-91

^c - combined 1988-89 and 90-91 data

3. IC=s Recycling Program

The recycling program has been highly effective at keeping most of the paper used on campus from entering landfills. In 1989-99, the College recycled 210 tons of paper. This is more than the quantity purchased by the College because much paper is brought onto campus by students or through the mail system. Thus, by making recycled fibers available to paper manufacturers, the College has reduced its impact on the environment. Currently, the IC recycling program reduces air pollutant emissions by 12,000 pounds, and water use by over 1 million gallons.

4. Practices of other universities and federal and state agencies

To date, Ithaca College does not have a statement of environmental policy that addresses issues of procurement and disposal of products. This is in sharp contrast to that of many other universities and

federal and state agencies. Numerous agencies and institutions have adopted specific policies with respect to paper procurement. For example, federal agencies have been required to buy 30 percent post-consumer content copier paper exclusively since January 1, 1999. Likewise, institutions such as Rutgers, Tufts, Brown, Georgetown, Tulane and the Universities of Minnesota, Vermont, Michigan, South Carolina and SUNY-Buffalo have all supported and adopted environmentally favorable policies for university and campus store procurement (Keniry, 1995). In 1999, the University of Vermont adopted the same policy as the federal government (mandating 30% post-consumer recycled content for copier paper), and advocated the use of non-chlorinated paper (to avoid synthesis and release of dioxin) whenever possible. Several of the policies adopted by colleges and universities have been included in this report in Appendix A.

III. Alternatives: Costs and benefits of recycled content papers

1. Environmental

The production of paper impacts the environment in numerous ways. While manufacturing paper from recycled paper also has an environment cost in terms of energy use, water use and air emissions, it is significantly less than that associated with manufacturing paper from virgin wood pulp. For the amount of paper the College currently purchases, switching over to purchasing 30% recycled content paper would save: 1500 trees, 8,500 gallons of gas, 1,065,000 gallons of water, 440 cubic yards of landfill material, and 44,000 lbs. of air emissions (Table 2).

<i>Table 2. Reduction of the environmental impact of purchasing 30% recycled content paper compared to virgin paper^a</i>		
<i>Environmental impact</i>	<i>Savings per ton</i>	<i>Potential savings for IC (based on 88 tons/year)</i>
Number of trees saved	17 trees	1500 trees
Reduced water emissions	12,100 gallons	1,065,000 gallons
Reduced air emissions	504 lbs.	44,000 lbs.
Reduced energy consumption	97 gallons of gas (equivalent)	8,500 gallons of gas (equivalent)
Reduced landfilled material	5 cubic yards	440 cubic yards

^a - data from Weyerhaeuser Recycling, 3425 E. 17th Street, Eugene, OR 97403

2. Economic

Although historically the cost of virgin paper was substantially lower than recycled content paper, this is no longer true. Improvements in the production of recycled content paper and the expanding demand has brought the price of recycled paper down considerably. Paper prices fluctuate on nearly a daily basis, but currently the price of virgin paper is 90% that of recycled content paper (30% post-consumer). Thus, if all the 8.5 x 11" paper that the General Services Administration purchased last year

was 30% post-consumer, it would have cost the College \$62,475 instead of \$55,125.00, a difference of \$7,350.

Another concern has been the availability of reliable sources of recycled content paper. This is also no longer true, as IC=s main vendor for paper (Unisource) now routinely stocks Weyerhaeuser Husky 30%.

IV. Performance of recycled content paper in IC copiers, printers

In the past, one of the most frequent complaints with respect to recycled content paper is that it does not perform well in duplicators, printers and FAX machines. The recycled fibers are not as closely intertwined as virgin pulp fibers, resulting in a greater likelihood that these fibers will dissociate from the paper and lower the performance of these machines. While this complaint was probably valid 5-10 years ago, advances in the manufacturing of recycled content papers and in the production of paper-fed machines is such that this complaint is no longer valid in most operating conditions. Optimal performance of any paper in these machines requires proper storage and handling of paper supplies (see Appendix B: Proper Handling Techniques for Copy Machine Paper Tipsheet). To evaluate whether this drawback might represent a valid complaint at Ithaca College, we tested the performance of recycled content paper against that of virgin paper in duplicating, printing and FAX machines at numerous locations on campus. We were very appreciative of the willingness of many College offices to participate in the pilot test, indicating to us that there was widespread support for an alternative with a lower environmental impact.

We tested the performance of recycled content paper in 14 machines on campus between September 27 -October 10, 1999. Machines tested included 1 FAX machine, 3 printers, and 10 copiers of varying models. During one week, virgin paper was supplied in all the machines. In the second week, Weyerhaeuser Husky 30% post-consumer recycled paper was supplied. All users were asked to record the number of jams during each week. Users did not know whether the paper supplied was virgin or recycled. Overall, the number of jams for recycled content paper was approximately half that of virgin paper (19 vs. 36 jams). One copier (14th floor West Tower) was experiencing problems before our study began, and was serviced for dust after a week of virgin paper and before the week of recycled paper. If this copier is eliminated, then recycled paper jammed 16 times, compared to 25 jams for virgin paper. Only 4 of the machines jammed when fed recycled content paper, compared to 8 of the 14 machines jamming at least once using virgin paper.

Our finding that 30% recycled content paper performed as well in copiers and printers as virgin paper is consistent with a similar, but larger study by the U.S. Government Printing Office. In a test of two million sheets of paper on a variety of copiers and printers, 30 percent recycled content paper jammed in equipment 1.5 to 3.2 times for every 100,000 sheets; 20 percent recycled content paper jammed 2.8 to 2.9 times per 100,000 sheets; and virgin paper jammed 2.9 times per 100,000 sheets (EPA,1999).

V. Attitudes on campus - ICES survey

In order to ascertain the awareness, use, and attitude of the IC community with respect to paper, we conducted two surveys by email. The first survey was sent to all students; the second survey was sent to all faculty and staff with email accounts. Copies of the surveys and the results are included as Appendix C.

1. Student survey

Of the approximately 5,000 students on campus, 395 responded to the email survey. This response rate was disappointingly low, which may reflect how busy students are, or their level of environmental ignorance and indifference, or both. To the extent that environmental difference or ignorance contributed to the low response rate is a strong indication that a greater emphasis on environmental literacy should be incorporated into both the curricular and non-curricular aspects of the college community.

Of those students that did respond, it is clear that most students do not purchase recycled content paper and/or are unaware whether the paper that they do purchase from the bookstore contains recycled content. Only 14% of students said they regularly purchased recycled content paper from the bookstore. An additional 31% sometimes bought recycled content paper from the bookstore. More than 35% were usually or always unaware if the paper they purchased was recycled, and an additional 37% were sometimes unaware of the type of paper they purchased. Most students (70%) reported that the number of sheets of paper they use weekly for copying and printing to be less than 15; 45% of students that responded said they used less than 10 sheets per week. Only 2% of the students reported that they use more than 50 sheets per week. When asked whether they would support an increase in price for recycled content paper, students were equally split between yes (34%), not sure (36%) and no (29%). Most students who were willing to pay more for recycled content paper were willing to pay at least one more cent per page. Most students favored having this increase included in tuition (57%) rather than as a charge per page (43%).

2. Faculty and staff survey

One hundred and seventy-five staff and faculty responded to the email survey. This response rate was lower than hoped for, but within typical response rates for surveys without rewards for participation. Again, the low response rate may reflect environmental ignorance or indifference, or both. To the extent that environmental difference or ignorance contributed to the low response rate is a strong indication that a greater emphasis on environmental literacy should be incorporated into both the curricular and non-curricular aspects of the college community.

Overall, the staff and faculty responses indicated a concern for the paper use on campus as indicated by current practices and recommendations to further reduce paper use. The practices of faculty and staff have an even greater impact on campus: more than 70% of respondents reported using 50 or more sheets of paper weekly, compared to only 2% of the students respondents. Four percent of respondents (7 individuals) reporting using more than 500 sheets of paper each week. Faculty and staff already undertake several measures to reduce paper use: 20% use the library=s electronic reserve system, 26% have developed web pages, and 90% of respondents practice double sided-copying. However, among those using double-sided copying, 40% of respondents do not use double-sided copying on the majority of their copy jobs, and only 40% of respondents use double sided copying for more than 75% of the copying that they do. This infrequent reliance on double sided copying is surprising, given that 80% of respondents were aware that double-sided copying at the duplicating center is fast, cheaper, and more efficient than single-sided copying. Thus, many faculty and staff are actively trying to reduce paper use. Interestingly, the vast majority of faculty and staff (80%) were unaware that most paper on campus had no recycled content prior to this survey. Perhaps they had

never thought about it, or perhaps they assumed the College was already primarily purchasing recycled content paper.

The faculty and staff respondents provided numerous useful suggestions on how the impact of paper use on campus could be further reduced. Many of these comments are included in the following section of recommended policies and practices to reduce paper use, the complete list can be found in Appendix C.

VI. Recommendations

1. Paper purchasing policy

We believe that the environmental gains from adopting a policy of purchasing recycled content paper currently outweigh the economic and performance costs of doing so. The performance costs (machine jamming and increased maintenance) are no longer a valid concern, as demonstrated by our pilot study and a much larger study performed by the U.S. Government Printing Office. The economic costs have become marginal, since recycled content paper (30% post-consumer) currently costs only 10% more than virgin paper. For this 10% increase in cost, the College would lessen its environmental impact by 1500 trees, over a million gallons of water use, the equivalent of 8,500 gallons of gasoline use, and 440 cubic yards of land-filled material.

Converting over to the purchase of recycled content paper would be an important preliminary step towards increasing procurement of recycled content products. There is already a well-defined network to advocate and facilitate the purchase of recycled content materials, as evidenced by websites that specifically address this subject (EPA's Comprehensive Procurement Guidelines - www.epa.gov/cpg; Buy Recycled Business Alliance - www.brba.nrc-recycle.org, King County, WA, "green" procurement site - www.metrokc.gov/procure/green, Maryland Environmental Services - www.menv.com).

2. Policies related to reduced paper use

Equally or more important than increasing the post-consumer recycled content of the paper purchased by Ithaca College is decreasing the amount of paper used on campus. The campus community has made significant steps in this direction, particularly in the use of expanded use of the Ithaca College Web Page system, but there are still numerous ways in which paper use can be further reduced.

The Committee offers the following recommendations to encourage a reduction of paper use. These recommendations are derived from our collective experience as staff, faculty, students, alumni, and trustees, and from policies implemented at other academic institutions. The underlying goals of the recommendations are to convert from paper-based communication to electronic formats, and to encourage more efficient use of paper communication when necessary. While we recognize that some policies will initially require additional administrative support, we view implementation of all proposed recommendations as feasible and affordable.

Discouraging mass mailings:

- 1 All activity announcements and invitations should be publicized in the *Ithaca News*, and sent to interested parties only by email.
- 1 Limit announcement and other mailings to department chairs, office managers, or administrative assistants for posting, rather than sending copies to all individuals within an office or department.

- t Rely more heavily on current calendar of events on Ithaca College Web Page.
Increase the prominence of daily events on the web calendar. Consider sending faculty, staff, and students weekly email notifications of AEvents of the Upcoming Week@
- t Extend the opportunity to receive electronic notification of campus life activities beyond incoming class.
First-year students find this to be an extremely useful resource; upper-level students would like to be able to subscribe to this service as well.
- t Implement a surcharge for duplication of mass mailings that could easily be disseminated through other formats.
For example, orders sent to the duplication center for more than 100 copies should be subject to a surcharge of \$50. Preparation of exams for large lecture classes would be exempt.

Developing guidelines for intra-campus mail

- t Limit use of high-quality Ithaca College letterhead and memo stationery.
Except for official transactions, such as hiring and promotion notifications, use of bonded stationery should be avoided.
- t Develop policy that all intra-campus mail that is not person-specific and confidential be sent in reusable campus mailing envelopes.
Use of white, regular and large format envelopes should not be permitted, but returned to sender as undeliverable unless stamped as confidential.

Promote use of electronic communication through the following administrative projects

- t Develop software to remove duplications of addressees in large merged mailing lists.
There are many individuals on campus that are on multiple mailings lists that are sometimes merged for mailings. Staff that are currently enrolled as students or who are alumni receive duplicate mailings, one to their campus address and one to their residence. In some cases, triplicate or more mailings are received by staff that are IC alumni and have donated to the College and served as Trustees. All mass merged mass mailings lists should be screened for duplicates before distribution, with the on-campus address being retained.
- t Develop series of distribution lists within PPSBS to facilitate on-line communication.
For example, if there were distribution lists set up for subgroups of staff, or faculty, or students, then it would be easier for offices, programs and departments to use on-line communication. These lists should be available through the IC web page, with restricted access where necessary to prevent inappropriate uses.
- t Develop ACCS workshops on creating, maintaining and using distribution lists.
- t Develop on-line capabilities for routine transactions
Routine practices and forms utilized by College offices (Registrar, Provost, Payroll, Admissions, and Human Resources) should migrate to electronic format. Specific suggestions include: online submission of curriculum course proposals and course supplements, proposals for internal funding (Instructional Development Fund, Summer Faculty Research Grants, Academic Projects Grants, etc), reimbursement forms for health care and dependent day care expenses as well as travel expenses, and email notification of direct deposits. For practices that typically requires signatures, the paper submission could be reduced to a single signature page. Passwords could be created to allow access to authorized individuals, such as reviewers.

- t Increase awareness and use of labeling features on printed pages to avoid use of adhesive address labels.
- t Increase access and support services for document imaging (scanning) on campus.
- t Develop ACCS support services for development of course web pages.
Many faculty members are increasing the use of the electronic reserve system at the library. This system, however, is limited by the rate at which the limited library staff can catalog, process and scan reserve materials. Since much of this information, such as lecture notes or past exams, does not benefit from the cataloguing process (but is delayed considerably in the process), a more efficient means of making course materials available to students is the use of course-specific web pages. Unfortunately, this burden currently falls on the individual faculty member who often lacks the knowledge or time required for maintaining a web site. As of 1/1/2000, ACCS has begun to facilitate this process through the adoption of *CourseInfo* and appropriate training sessions for faculty and staff.

Expand on-line access opportunities for students

- t Increase number of web-accessible computer facilities in dormitories.
- t Provide off-hours access to computer facilities.
Both of these activities would decrease the need for students to print web-information in order to complete assignments.

General

- t Change policies at the duplicating center such that double-sided copying is the default setting. Single sided copying would be categorized as a special order.
- t Replace existing computer printers that are heavily used by models with duplicating capabilities.
New printers purchased to replace or expand printing services within the Office of Information Technology should have duplexing capabilities.
- t Continue to renovate classrooms to Asmart classrooms@
- t Expand data storage on servers through ACCS.
Many staff and faculty are now limited in their electronic archival of data through allotted disk space on the servers. ACCS should work towards expanding allotted disk space to encourage electronic archival of data and email as appropriate.
- t Develop and support uses of discarded 1-sided paper.
Discarded paper used only on 1 side should be available for Atest@ copies and/or be cut and stapled for note pads and buck slips. This could either be done by individuals or as part of the recycling program.
- t Demonstration of support from the President, President=s Council, and Board of Trustees.
The Administration should adopt a policy mandating purchase of recycled content paper, and/or a more overarching commitment to environmental initiatives and policies.

VII. Conclusions

The Resource and Environmental Management Program constantly strives to improve the practices and policies of the College with respect too their environmental impact. Converting over to purchasing 30% post-consumer recycled content paper as the College=s primary paper product and implementing paper reduction strategies would be an extremely significant step forward for Ithaca College in this age of environmental enlightenment.

VIII. Literature Cited

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Appendix A Procurement Policies at Other Higher Education Institutions

University of Vermont

In addition to presenting Earth Day concerts, lectures and celebrations, the University of Vermont is quietly strengthening its commitment to environmental protection with a new policy to purchase recycled paper. UVM's Environmental Council, an advisory group comprising faculty, students, staff and community members, recommended the policy after working with the main purchasers of paper on campus, including the Purchasing Department, University Graphics and Printing and the Physical Plant Department.

The UVM policy follows U.S. Environmental Protection Agency guidelines for post-consumer recycled content in paper products, which specify a minimum 30 percent recycled content for copier paper. A recent study conducted by the Government Printing Office and three manufacturers of office equipment concluded that copier paper with 30 percent post-consumer content performs just as well as virgin paper or paper with lower recycled content. In the long term, UVM anticipates the percent of recycled content in its paper to rise.

The UVM policy also establishes a preference for paper bleached without chlorine, which is associated with the production of dioxins, a group of highly toxic chemicals. A primary motivation for the policy is to reduce the environmental impacts of the university's use of paper by supporting recycling. "The policy is a natural extension to the campus recycling program," said Erica Spiegel, recycling coordinator. "We collect over 300 tons of waste paper each year to be made into new paper products. Unless consumers and institutions buy these new products, recycling cannot succeed."

SUNY Buffalo

Environmentally Sound Products Procurement Policy

The University at Buffalo, through its strong commitment to environmental protection, will seek to utilize to the fullest extent possible "environmentally friendly" products which, to whatever extent possible, have the following attributes or qualities:

- * Durable, as opposed to single use or disposable items
- * Made of recycled materials, maximizing post consumer content
- * Non-toxic or minimally toxic, preferably biodegradable
- * Highly energy efficient in production and use
- * Can be recycled, but if not recyclable, may be disposed of safely
- * Made from raw materials obtained in an environmentally sound, sustainable manner
- * Manufactured in an environmentally sound, sustainable manner by companies with good environmental track records
- * Causing minimal or no environmental damage during normal use or maintenance
- * Shipped with minimal packaging (consistent with care of the product), preferably made of recycled and/or recyclable materials
- * Produced locally or regionally (to minimize the environmental costs associated with shipping)

University of Minnesota

Board of Regents' Policy

Conservation Pollution Prevention and Waste Abatement

Adopted June 11, 1992

The University of Minnesota is committed to excellence and leadership in protecting the environment. Our objective is to reduce all types of waste and emissions. We strive to minimize adverse impact on the air, water, and land

through excellence in pollution prevention and waste abatement. By preventing pollution at the source, we can save resources, increase operational efficiencies, and maintain a safe and healthy work place for our students and employees. By abating those wastes that cannot be eliminated at the source, we can recover useful resources and reduce the environmental and economic burden of waste disposal.

We believe that environmental protection is everyone's responsibility. Its manifestation is valued and displays commitment to the University.

The University of Minnesota will achieve pollution prevention and waste abatement under the following guidelines. We will:

- * Include the reduction of both hazardous and non-hazardous wastes and emissions at the source as a prime consideration in teaching, research, service and operations. The University is committed to identifying and implementing pollution prevention opportunities through encouragement and involvement of all students and employees.
- * Give top priority to technologies and methods which substitute non-hazardous materials and utilize other source reduction approaches in addressing all environmental issues.

Trent University (Canada)

ENVIRONMENTAL PROCUREMENT POLICY (11/94)

1.0 POLICY OBJECTIVE

It is the objective of the University that supplies, equipment, and services procured by the University shall support the 3 Rs of waste management, namely Reduce, Reuse, and Recycle, and the conservation of energy and water. In so doing the University intends to minimize the harmful effects of their use and final disposition on the environment.

2.0 SCOPE

This policy applies to all University purchases of goods and services. The University will endeavour, where possible, to consider in the purchasing process the favourable environmental impact of the product or service selection. The criteria for such consideration will be products or services which have been approved by the Ministry of Environment's "Environmental Choice Board" and identified by the Canadian Standards Association or other such Federal, Provincial or Nationally recognized body, as being produced in such a way that improves energy efficiency, reduces hazardous by-products, uses recycled materials or because the product itself can be reused or is recognized to be environmentally sensitive. *

3.0 RESPONSIBILITY

The University is committed to actions designed to conserve and protect the environment and will continue to implement those actions whenever possible and economical. It is the responsibility of the University's Purchasing Office in conjunction with all University departments to promote the development and use of environmentally friendly products and services through the following activities:

- * Reviewing contracts, tenders and specifications for goods and services to ensure that whenever possible and economical, they are amended to provide for the expanded use of products and services that contain the maximum level of post-consumer reusable or recyclable waste /or recyclable content, without significantly affecting the intended use of the product or service.
- * Working with the President's Advisory Environmental Committee and the department responsible for waste management to identify new environmentally friendly products and services and improvements/changes in

industry standards that may impact on our environment.

* Purchasing from suppliers that provide environmentally friendly products and services or suppliers that are environmentally sensitive in their daily operations.

* Promoting the purchase of goods and services which support the three Rs where available and practical, for the day-to-day operation of the University.

* Seeking new suppliers and encouraging existing suppliers to review the manner in which their goods are packaged. Working with suppliers in the areas of reduction and reuse of packaging materials.

* Using cost benefit analysis to arrive at the correct sourcing decision, one that remains economically practical, reflects effective purchasing practices and satisfies the requirements of the user department. **

* Making suppliers aware of the University's Environmental Procurement Policy. Sending a clear message that the University will favour those suppliers whose products meet the environmental objectives of the University.

University of Oregon

RECYCLED PAPER POLICY, MARCH 11, 1996

It is the policy of the University of Oregon to purchase and use recycled paper products, in its operations in accordance with Executive Order No. EO-90-90, dated April 30, 1990. This policy requires the purchase and use of paper products made from recycled materials when such products are of a quality to satisfy applicable specifications, are available in the desired quantity within a reasonable period of time, and are priced competitively in accordance with preferential rules of the State of Oregon Model Public Contract Manual.

Any University of Oregon request for bids or quotes for purchase of paper products, including authorized printing from outside vendors, shall include a solicitation of bids or quotes for recycled paper and papers that have not been bleached with chlorine or other hazardous materials. No specification shall require the use of paper products made exclusively of virgin materials, nor specifically exclude the use of recycled paper or tree-free products, as provided in Oregon State statutes.

University Printing Service shall have the authority to specify the minimum recycled content standard in bid solicitations to accomplish the purpose of this policy. The default for all office equipment that uses paper, such as copiers, printers and fax machines, shall be set to reflect these specifications, and be in compliance with the State of Oregon policy guidelines. Every effort will be made to eliminate excessive or unnecessary paper use. Strategies for doing so include:

- * electronic mail or other paperless communication,
- * double-side copying [EO-90-09],
- * half-sheets of paper for all brief, printed on-campus communications,
- * short distribution and targeted mailing lists to reduce volume.

In accordance with the guidelines stated above in this policy, the official stationary program as shown in "Graphic State of the University of Oregon" shall be determined by the Office of University Publications and University Printing Services, with approval by the Environmental Issues Committee. The use of heavily dyed paper or paper which requires special handling for recycling will be subject to additional charges.

University of South Carolina

Procurement Policies

Background

"Even small campuses are large when it comes to buying power. Because of the dollars they spend and the quantities they purchase, institutions of higher education can play a key role in building the market for environmentally friendly goods and services. Higher education expenditures in the US exceeded \$186 billion in 1992-93; college students spent another \$45 billion and college bookstore sales in the US reached \$6.5 billion in the same year. New jobs, lowered prices, and environmental protection are just a few of the benefits that accrue to a campus and its surrounding community when it chooses to use this lever.

Because purchasing marks the entry of most goods and services into the campus system, this gateway is also one of the best sties for environmental innovation. Through careful purchasing, university procurement staff can support a range of environmental practices, including source reduction (buying less of what will eventually become waste), waste stream diversion (assuring that what was once discarded is now used longer, recycled, or reused), recycling (an approach that now reaches far beyond paper, bottles, and cans), and closing the loop by buying goods made from recycled materials. In the details of procurement contracts lie a potential blueprint for a new type of institution, one that purchases less, uses differently, and casts much less away."

--Excerpt from National Wildlife Federation's Ecodemia publication

Current Policy

Scott Reynolds, Director of Purchasing, has been a catalyst for buying recycled products. To aid in making purchasing and procurement decisions, the Department of Health and Environmental Control has developed the South Carolina Buy Recycled Procurement Guide. This guide offers a wide array of helpful suggestions to improve environmentally responsible purchasing. It outlines the types of recycled products that are available to government and state agencies.

The following tables reveal U.S.C.'s commitment to environmentally sound procurement policies.

University of South Carolina=s procurement of post-consumer recycled office supply products.

Item	Description	%Post-Consumer Waste
File Wallet	Letter Size, Flap/Tie	10%
File Wallet	Legal Size, Flap/Tie	10%
File Folder	*Cut, Letter Size	10%
File Folder	1/3Cut,LetterSize	10%
File Folder	1/3Cut,Legal Size	10%
File Folder	Assorted Colors, Letter Size	10%
File Folder	Kraft,1/3Cut,LtrSz	10%
File Folder	Kraft,1/3Cut,LegSz	10%
File Folder	Kraft, Str Edge, Legal Size	10%
File Folder	Kraft, Center Cut, Legal Size	10%
File Folder	w/Fasteners Both Sides, Legal Size	10%

University of South Carolina=s procurement of post-consumer recycled office supply products.

Transfer File Box	Letter Size	65%
Transfer File Box	Legal Size	65%
Notebook Paper	8*x11(Kleer-Fax Brand Only)	10%
Binder Covers	3 Prong Fasteners (Smead Brand)	10%
Pressboard Folder	1"Exp.,Legal Size, Green	10%
Post-It Notes	1*x2 and 3x5 sizes	20%
Scissors	12"(Kleen Cut Brand Only)	*100%

*Pre-industrial waste

University of South Carolina=s procurement practices of post-consumer non-office paper products.

Item	Description	% Post Consumer Waste
Hand Towels	Jumbo Roll	20 %
Hand Towels	Multi-Fold	30 %
Toilet Tissue	Standard Roll	20 %
Toilet Tissue	Jumbo Roll	30 %

Appendix B

Proper Handling Techniques for Copy Machine Paper

When you are loading paper in a copy machine, do not put more paper than what you intend to use for that day.

Fan the paper and check to be sure you place the paper in the tray print side up or down based on the method of feed for your copy machine. Your copy manual should indicate the path of the paper for your machine. Each ream has a label that indicates what side is to be printed first.

Remove leftover paper in the paper tray before adding new, and place on top of the new paper so that you are using the oldest paper first. Be sure the reams blend together and that there is not any sheets skewered. If there is, your machine will usually jam right at that location.

Never leave partial reams of paper out of their wrapper or unsealed. Paper exposed to the elements are effected by temperature and humidity which affects the way it runs.

If you shut your copy machine off for the weekend, ideally you should remove all the paper from the machine. The temperature change has an effect on the paper and notoriously you experience more copy machine jams on Monday because the paper left in the machine has been effected by the temperature change in the machine and is exposed to any temperature and humidity change.

Note: If you use recycled copy paper, these handling techniques are very important in helping to eliminate feeding and jamming problems.

Appendix C

Student Survey

ICES and REMP want to know what you think and do!

Presently IC uses nearly 15,000,000 sheets of paper per year. The vast majority (88%) of this paper has little or no recycled content. While the College community does an excellent job recycling the paper we use (200 tons in 1997-1998), the impact of paper use on campus could be substantially reduced by using less paper and using a higher recycled content for the paper we purchase. For every ton of paper produced from recycled materials, 17 trees and 326 gallons of fossil fuels are conserved.

ICES (Ithaca College Environmental Society) and REMP (Resource and Environmental Management Program) are evaluating the quantity and environmental impact of paper use on campus, and developing recommendations regarding paper purchase and use on campus. As part of our efforts, we are conducting a survey to analyze student awareness of paper use and policies. These survey results will be use to develop recommendations to the President's Council.

Thank you for your time.

ICES Representatives: Patrick Pressley, Sean Vormwald and Courtney Blakey

REMP Representatives: Susan Allen-Gil, Mark Darling, Marian Brown, Jeff Brainard, and Kent Mitchell

Please reply to this email (to ICES) with your answers to the following questions honestly and to the best of your ability. Please delete the answers that do not apply, leaving only your intended reply. Depending on you email program, you may need to cut and paste the text in order to edit it.

TOTAL OF 395 responses

1. Do you buy recycled content paper from the bookstore? (379 responses)
 - A. YES 14%
 - B. NO 55%
 - C. SOMETIMES 31%
2. Do you know if the paper you buy contains recycled content? (387 responses)
 - A. YES 26%
 - B. NO 37%
 - C. SOMETIMES 37%
3. Would you support an increase in price for recycled content paper? (387 responses)
 - A. YES 34%
 - B. NO 29%
 - C. NOT SURE 36%
4. If so, how much more would you be willing to pay per sheet of recycled content paper? (334 responses)
 - A. NOTHING 26%
 - B. 1 CENT 44%
 - C. 5 CENTS 21%
 - D. 10 CENTS 8%
5. In your opinion, who should pay for paper? (361 responses)
 - A. TUITION \$ 57%
 - B. CHARGE PER COPY/PRINTED PAGE 43%
6. Estimate the number of sheets of paper you use in a week for copying and printing. (361 responses)
 - A. 0-10 45%
 - B. 11-15 25%
 - C. 15-20 17%
 - D. 20-50 11%
 - E. >50 2%
7. Other comments or suggestions:

Again, thank you for your time.

ICES and REMP

Faculty and Staff Survey

Presently IC uses nearly 15,000,000 sheets of paper per year, and this number has increased steadily in recent years. The vast majority (88%) of this paper has little or no recycled content. While the College community does an excellent job recycling the paper we use (200 tons in 1997-1998), the impact of paper use on campus could be substantially reduced by using less paper and using a higher recycled content for the paper we purchase. For every ton of paper produced from recycled materials, 17 trees and 326 gallons of fossil fuels are conserved.

REMP (Resource and Environmental Management Program) and ICES (Ithaca College Environmental Society) are evaluating the quantity and environmental impact of paper use on campus, and developing recommendations regarding paper purchase and use on campus. As part of our efforts, we are conducting a survey to analyze faculty awareness of paper use and policies. These survey results will be use to develop recommendations to the President's Council.

Thank you for your time.

ICES Representatives: Patrick Pressley, Sean Vormwald and Courtney Blakey

REMP Representatives: Susan Allen-Gil, Mark Darling, Marian Brown, Jeff Brainard, and Kent Mitchell

Please reply to this email (to ICES) with your answers to the following questions honestly and to the best of your ability. Please delete the answers that do not apply, leaving only your intended reply. Depending on you email program, you may need to cut and paste the text in order to edit it.

175 responses

1. Were you aware that almost all paper on campus has no recycled content prior to this email survey?

- A. YES 21%
- B. NO 79%

2. Estimate the number of sheets of paper you use in a week (including jobs sent to the duplicating center, in-house copies, and in-house printing):

- A. 0-50 29%
- B. 50-100 32%
- C. 100-250 27%
- D. 250-500 8%
- E. >500 4%

3. Do you currently use any of the following means to reduce your paper use:

- A. DOUBLE-SIDED COPYING. 90%
- B. DEVELOPMENT OF COURSE WEB PAGE 26%
- C. LIBRARY ELECTRONIC RESERVE 20%
- D. OTHER - What would increase the likelihood that you could achieve a reduction in paper use?

4. For what percentage of your copy jobs do you use double sided copying?

- A. <10% 21%
- B. 10-50% 22%
- C. 50-75% 18%
- D. > 75% 40%

If this is less than 50% of your jobs, why do you choose not to double-side your work, handouts or exams?

5. Are you aware that duplexing through the duplicating center is faster, cheaper, and more efficient than single-sided copying?

- A. YES 80%
- B. NO 20%

6. Do you have other comments or suggestions on how the College might reduce thee paper use on campus?

- online auto registration, contracts and insurance
- computer access for everyone
- photocopy allotments/limits
- enforce copy guidelines
- more smart classrooms
- focus efforts on computer labs
- internal communications and electronic files
- office posting of announcements (not individual)
- online H&S curriculum proposals and course supplements
- more computer training (especially web training) for faculty and staff

online data entry for multipart forms (changing major, etc)
alternative on-line teacher evaluation forms
get specialist for workshop on Apaperless@ office
encourage email archiving on disk not paper
dry erase boards instead of bulletin boards
increase data storage on ACCS servers
reopen copy center in Muller for convenience
education programs
digitize financial info (payroll, accounting)
duplexing printers
more access to scanners
mandatory reduction/recycling training

Again, thank you for your time.
ICES and REMP
