



Promoting Cleaner Production on the Web

Communication and access to information are essential to the successful implementation of Cleaner Production. Factories and various levels of government must be aware of what Cleaner Production is, communications among interested stakeholders must be as easy as possible. Given the vast distances in China and the large number of factories and organisations involved, the potential of computers and the World Wide Web to the Project was clear from Day One.

One early Project activity was to ensure that all of the participants had the capacity to communicate with each other using email—to achieve this every one of the participating organisations in China was equipped with a computer with a connection to the Internet. This allowed the exchange of email among participants in China and Canada. This was followed almost immediately by the setting up of project web sites in English and Chinese. To ensure that all participants were able to be actively involved, and ensure effective use of the technology, a number of train-

ing courses and one study tour also were undertaken.

Initially the web sites concentrated on project activities and links to foreign information sources. Within a short period it became clear that the missions of the English and Chinese sites would be different. The English site concentrated on providing links to foreign information and information on Cleaner Production in China, to make foreigners aware of the progress that was being made in China. The Chinese site concentrated on providing the information required in China for the implementation of Cleaner Production. The site plays a key role in promoting cleaner production in China and providing the participants with easy access to Cleaner Production/Pollution Prevention information from Canada and other countries.

The success of a web site is not guaranteed by good design and useful content. Other considerations include consistent, dedicated support and excellent exposure through strategic placement with search engines.

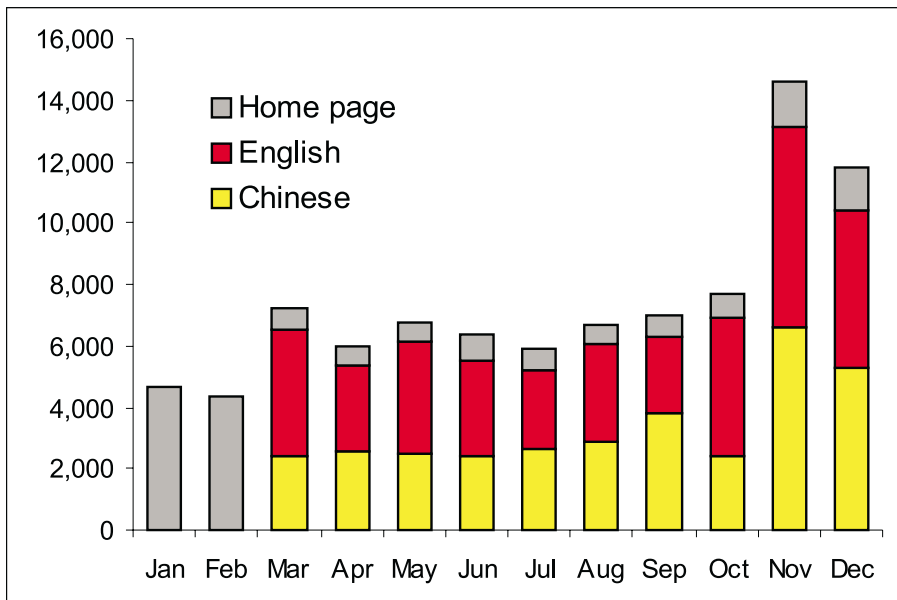
The web site was established on a computer in Canada, but within months the staff of the Chinese project office took full charge of maintaining and updating the Chinese language web site. This work was carried out by the Project Management Unit. Originally Qi Hong Wei was responsible for the Chinese site, but as his other responsibilities increased, the implementation of the Chinese site became of the responsibility of Li Xin. The English language portion of the site has increasingly become the responsibility of Bettylou Ross of the Canadian project staff, working in close consultation with the Project Management Unit. Collectively, staff made a special effort to ensure that the site was submitted to the most important search engines.

As a result of all of these factors, use of the site grew consistently from initially low rates to about 7000 page requests per month by early 2000.

By mid-2000 the State Economic and Trade Commission (SETC) decided to incorporate the site as its official Cleaner Production/Pollution Prevention site and to take responsibility for the site when the Project terminates in 2002. This decision prompted a revision of both the English and Chinese language sites. Usage increased again and is currently averaging 13,000 page requests per month.

The emphasis on both sites was shifted from the project itself to the general implementation of Cleaner Production in China. The English site is concentrating more and

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Monthly website page requests - 2000.

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Winter 2001

Project Update

Policy

One indicator of the increasing importance of CP policy in China is the growing workload of the CP Policy Expert Group. They are involved in numerous initiatives. They have developed a draft framework for CP policy and are providing expertise and guidance at workshops and meetings related to the Ten CP Demonstration Cities and Five Industrial Sectors initiative. They have also reviewed and made recommendations on the implications of CP for fiscal policy. And they continue to serve as a window on the world, as they acquire translated CP documents from Canada and international institutions.

Guidance and Implementation

Work is underway in the PVC/chloralkali sector. The pre-audit and audit have been completed, and a working draft of the audit report/solutions identification has been produced. The next step will be completion of a sectoral audit manual and guideline.

New equipment was tested, or installed and made functional in the demonstration project at the Anhui Pulp and Paper Mill. Further developments will wait until the mill is operating at full capacity again—a decline in production that is unrelated to the Project has masked the benefits of CP. At Fuyang General Chemical Works the purchase and installation of monitoring equipment will enable the plant to demonstrate the end of pipe effectiveness of its CP solutions.

Meanwhile, achievements in fertilizer and pulp and paper sectors are being rolled out throughout those sectors, mainly in Anhui Province, through onsite training in auditing. Chinese engineers trained earlier by the Project are leading this effort, with the strong support of the Anhui ETC and the Project.

Training

Training has also been provided for broader audiences. Process Improvement courses were given in Kunming and Lanzhou, in recognition of their designation as national CP Demonstration Cities. A CP Fertilizer Workshop in Beijing served as a launch for rolling CP out across the

fertilizer sector. A Gender Equity Workshop in Hefei was attended by people from a wide range of institutions. In total, 275 people participated in six sessions, for a total of 510 days of training. The Project also sponsored a number of awareness-raising activities.

Gender Equity is an ongoing project activity. Gender Equity Awareness is now integrated into all training activities. Gender Equity Working Groups continue to be active in the two initial demonstration plants, and a gender analysis was completed in the newest CP demonstration plant, the PVC/chloralkali plant in Quzhou. The Project-initiated Women and Environment Network has developed a webpage

on Women and Environment for the website of the Chinese Economic Information Network.

Information technology

The Project website has undergone a transformation in recent months. The Project has accepted a request from SETC that the website become the SETC's official CP website. The website has been redesigned to meet this broader mandate. Page requests have increased markedly since the recent overhaul, and Chinese staff are assuming more responsibility for its maintenance and management, as the website moves towards independence from Project support.

For more information on the Project please contact Ken Parent at PricewaterhouseCoopers, phone 613 237-3702, email kenneth.r.parent@ca.pwcglobal.com

Policy Expert Group is making its mark

The rapid pace of change in China, and growing acceptance of Cleaner Production, is creating a high demand for the expertise and participation of the Chinese CP Policy Expert Group. They are busily involved in at least four different initiatives.

1) The Expert Group, supported by the Canadian CP specialists, has completed their review of CP policies and policy options, and has drafted a CP framework to facilitate the drafting by the SETC and NPC of the CP Act. The Third Edition of the Draft CP Act has been completed and distributed for discussion, review, and inputs.

2) The Industrial Strategy Plan for Development, with its focus on ten CP demonstration cities and five major industrial sectors (chemical, light industry, textile, metallurgical, and ship-building) had resulted in requests for their participation, and that of Project's resident co-ordinator, in numerous workshops. One challenge that has been identified by various sectors is concern about building public support for the

national industrial strategy. Documents related to this subject were provided and translated into Chinese, including reports from Canada and the International Finance Corporation of the World Bank Group.

3) A recent shift in fiscal policy, to increase the pace of change to a market economy (e.g. privatization of State Owned Enterprises (SOE); new banking and tax regulations; and future admission to WTO all have served to heightened attention to the Group's analyses and recommendations.

4) In addition, the expert group assisted in preparing the sectoral CP guidelines.

Meanwhile, the case studies on CP implementation that the Group wrote last year are also drawing attention. The Jinan Steel Mill case study is becoming regarded as a powerful document: the case study, with its analysis, has been recommended by SEPA to the State Council and other central governmental agencies as model for implementation of CP within other industries.

For more information on CP Policy, please contact Peter Higgins at 613 592-3074, email higenvcons@aol.com

Promotion of CP Solutions in the Fertilizer Sector

The Anhui ETC and the Project Office sponsored a CP seminar at the Juhua Group Chemical plant, Quzhou, Zhejiang Province on August 22 and 23, 2000. Its purpose was to promote CP in the fertilizer plants throughout China and demonstrate the experience and the successful results at the Fuyang Chemical General Works in Anhui Province. More than thirty people participated. They included personnel from eight fertilizer plants from Anhui, led by Mr. Wang Tiaquan of Anhui ETC; workers from the host Juhua plant; as well as Canadian CP experts from SNC-Lavalin Ltd, Dr. Marcel Pineau and Mme. Sophie Therrien; the Residence Project Coordinator, Dr. Robert Lao; and Mr. Qi Hongwei of the Chinese Project Office.

After a brief introduction by Dr. Lao, Mr. Wang, on behalf of Anhui Province, expressed his appreciation for this workshop sponsored by CIDA. He encouraged the participants to learn from the experts so that each plant could conduct its own CP audit in the year 2000. Mr. Jiang, the Standing Deputy General Manager for production of Juhua Corporation also welcomed the group, noting that it was an honor that Juhua was chosen as the site of the workshop. He asked the technical staff from Juhua to make the most of this unique opportunity to prepare themselves for forthcoming CP audits that will be conducted in-house.

Mr. Qi made a brief presentation on the origin of the China-Canada CP project, its objectives, goals, and targets. He commented that the participation of these eight plants was evidence of the province's support for this project. At the same time, it represents a commitment by the Province to the implementation of CP pre-audit and audit at their plants. The Anhui ETC will support review suggestion of CP solutions, and implementation of no and low cost recommendations, and some medium and high cost ones if feasible economically.

Dr. Pineau introduced how CP was inaugurated in Fuyang, including the state of knowledge at that time, and the rationale for adopting CP, based on his personal involvement. He stressed that fertilizer plants have high energy consumption and many potential sources of pollution discharge. CP must be undertaken in order to achieve sustainable development. CP is of particular value to the many State-Owned Enterprises that currently are losing money; CP is one of the vital methods for energy saving, as well as protecting the environment for human beings. Dr. Pineau and Mme. Therrien provided detailed de-

scriptions of the CP audit at Fuyang, and its solutions to reducing production cost and decreasing environmental pollution, by ammonia and sulfur recovery measures.

Mr. Sun of the Fuyang Plant introduced and described in detail the pre-audit and audit processes undertaken by Canadian experts, and their effort to provide the solutions for ammonia synthesis. These methods have raised the awareness both of the general concept and ideas about CP, but also the technical knowledge of how and where to implement CP in specific production lines within a plant.

During the meeting, every participant had the opportunity to either ask questions or propose suggestions. They showed keen interest, both in the classroom and the tour conducted on the premise. All acknowledged the achievement the Fuyang plant has realized, and provided recognition and praise for Canadian effort and generosity. Plant participants expressed their hope that more people can be sent to the Fuyang plant for further experience, and that, in future, every plant can bear the same fruit as well.

Qi Hongwei

For more information from the Project Office in Beijing please contact Qi Hongwei at 86-10-6428-7757, email cccpcp@public.bta.net.cn



Project Office

On-Site inspection of equipment and sources of environmental emission during training in CP auditing.

CP on the Internet

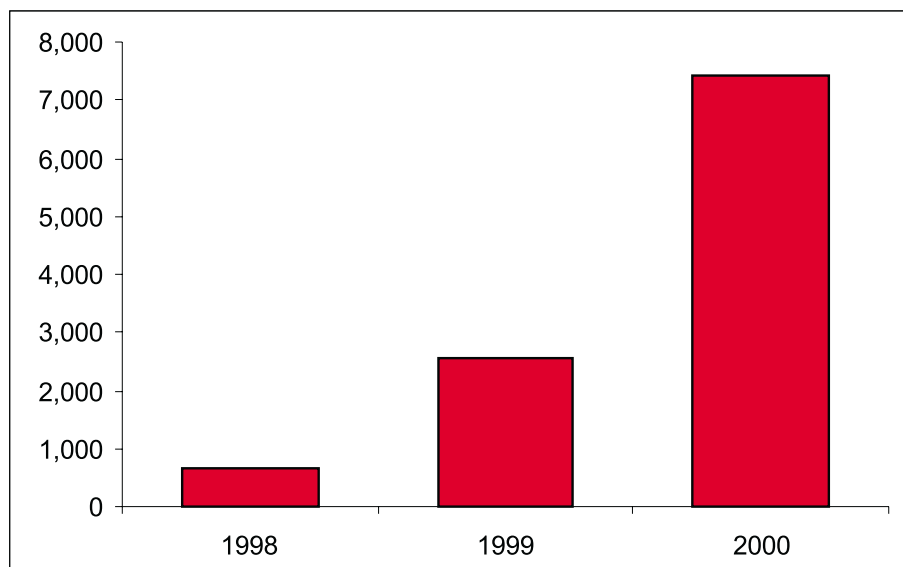
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more on making the world aware of the progress of Cleaner Production activities in China, including policy, the implementation of projects, the participation of various Chinese and donor organizations, as well as providing general Cleaner Production information and links to relevant sites. The Chinese language site is concentrating on providing the information and training materials needed by organizations in China to implement Cleaner Production. SETC plans to expand the number of organizations using the site for information and communication during 2001/2002.

Early in 2001 the location of the web site will be moved from a computer in Canada to a computer in China, and during 2001 and early 2002 all web site activities will be progressively shifted from the Project to the SETC.

People from about 100 countries have visited the site, with about half of the users going to the Chinese site. The chart (see page 1) shows the use of the site by month by language version for 2000. Compilation of use by language was begun in March 2000.

Since the site was established in 1997 through December 2000 there have been about 125,000 page requests from more than 21,000 visitors. (The Project measures page requests which counts a page and all the graphics on it as one visit, rather than counting "hits" which count each page and each graphic as a separate visit—the site has had more than 300,000 "hits.")



Average monthly page requests.

The chart above shows the average number of month page requests during each of the three years that the site has been operational.

This increase in use of the site in both English and Chinese is testimony to the growing importance of the internet in promoting Cleaner Production/Pollution Prevention in China. The websites will be a lasting legacy of the Project.

John Gordon

Main page of the project web site www.chinacp.com
Chinese language site www.chinacp.com/newcn/
English language site www.chinacp.com/eng/

For more information on CP Information Systems, please contact John Gordon at Grand River Informatics Inc., 519 843-7752, email gordon.gri@sympatico.ca

Contacts

Chinese Project Office

Contact: Mr. Qi Hong-wei
Environment Protection Research
Institute, Chinese Petrochemical
Administration
P.O. Box 1442
Beijing, P.R. China 100013
Ph: 86 10 6428-7757
Fax: 86 10 6420-1855
cccpcp@public.bta.net.cn

China-Canada Cooperation Project in Cleaner Production Office

Contact: Dr. Robert Lao
5 Dongsanhuan Beilu, Suite 1501
Beijing, P.R. China 100004
Ph: 86 10 6590-8740
Fax: 86 10 6590-8737
cleanpro@cloudnet.com.cn

PricewaterhouseCoopers

Contact: Ken Parent, Project Director
Suite 800, 99 Bank St.
Ottawa, ON Canada K1P 1E4
Ph: 1 613 237-3702
Fax: 1 613 237-3963
kenneth.r.parent@ca.pwcglobal.com

ESSA Technologies Ltd.

Contact: Bob Everitt
Suite 300, 1765 West 8th Avenue
Vancouver, BC Canada V6J 5C6
Ph: 1 604 733-2996
Fax: 1 604 733-4657
beveritt@essa.com

SNC-Lavalin

Contacts: Mark Osterman or
Dr. Marcel Pineau
2 Place Felix-Martin
Montreal, PQ Canada H2Z 1Z3
Ph: 1 514 393-1000
Fax: 1 514 392-4758
ostem@snc-lavalin.com
pinem@snc-lavalin.com

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