The Newsletter of the China-Canada Cooperation Project in
CLEANER PRODUCTION

Building support for Cleaner Production

Implementing Cleaner Production (CP) in China involves many different agencies and segments of society. The State Economic and Trade Commission (SETC) oversees economic development, which fuels industrial renewal; the State Environmental Protection Agency (SEPA) mandates environmental protection and pollution control; the technical "know how" resides in a wide array of industrial sectors. Many of the facilities that are candidates for CP are State-Owned Enterprises where workers will determine the ultimate success of measures such as reducing spills of pollutants. Public support is also important in a country where many urgent priorities compete for limited resources. Thus it is necessary to use a multi-pronged approach: to create awareness of CP and support across a broad spectrum of government agencies, industrial sectors and social settings, while building technical capacity.

China Petrochemical Daily News

Kindergarten students at the China Petrochemical Corporation Kindergarten/Primary School celebrate World Environment Day on June 5 with CP office staffer Qiangying Yeh.

The Project has responded with broad-based efforts to raise awareness of CP. A CP video, completed for the Project last year by a well-known Chinese film maker, has been well received in many venues. It was seen in October by millions of Chinese, as part of the country's 50th anniversary celebrations. Staff from the Project Office also participated in World Environment Day, distributing awareness-raising CP materials to primary school students in Beijing.

The Project's efforts to promote Gender Equity are of special interest to the Chinese. The concept of Gender Equity is relatively new in China. Project-sponsored equity workshops in Hefei and at Fuyang Chemicals generated lively discussion and stimulated action on the part of the employer to improve working conditions. Interested participants from Anhui province have joined the recently formed Women and Environment Network.

Other initiatives focused on building technical skills. A ten day workshop on computer skills was delivered in Heifei. The Project collaborated with the Anhui Management Development Centre, a CIDA-assisted training centre, to deliver the course in using office and communications software. Its success stimulated greater awareness of the potential of computers to improve work efficiency and effectiveness. As a result, three additional courses will be offered this fiscal year, in Beijing, Hefei, and Fuyang.

The Project is also supporting the growing network of Cleaner Production practitioners across Asia. Chinese delegates attended the Asia-Pacific Roundtable on Cleaner Production, where they shared information and experiences with others from Asia and Australia. Documents and Project information is also disseminated through the Asian and Pacific Centre for Transfer of Technology (under the United Nations Economic and Social Commission for Asia and the Pacific).

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Inside Issue 4

Winter/Spring 2000

Project Update

The success of a multi-pronged approach to Cleaner Production continues, demonstrated by the progress made over the past six months. In a country where there are many pressing issues demanding attention, the Project has ensured that Cleaner Production is high on the agenda of policy makers, managers across the industrial sectors, and government agencies. It has even extended CP awareness to citizens from every part of society.

On the policy level, the Project continues to work with Chinese CP policy makers to integrate the lessons learned from international initiatives into the emerging Chinese CP policy framework. The Chinese Expert Group, working in collaboration with the Canadian policy leader has developed Chinese case studies, a draft policy framework, and a study on the formulation of legislation. These studies will the focus of a review by a cross section of Chinese policy experts in the new year. The Chinese have endorsed Cleaner Production in their " 10 Clean Cities—5 Clean Industries" initiative, and look to strong links with the Project to support that initiative (see the Policy-Making article on the next page for more details).

The progress being made in CP implementation is one of the reasons for the attention being given CP. The two demonstration projects are largely completed and Guideline-Audit Manuals for the Pulp and Paper and Fertilizer sectors will be finalized and distributed soon. Five additional fertilizer factories in Anhui province have been selected for the application of the CP methodologies developed at Fuyang Chemical General Works. At the Anhui Paper Mill, initial steps are being taken to address three high cost issues: i) improving the black liquor extraction process, ii) installing a four-drum vacuum washing line, and iii) closing a bleach plant and rerouting the brown stock.

Meanwhile, the technical focus of the project is expanding to include two new industrial sectors: chlor-alkali/PVC production and fermentation. The process of developing guidelines for chlor-alkali/PVC has begun, with the completion of site visits and data collection. This work is broader in scope than originally anticipated, in order to include the upstream production of chlor-alkali in the proposed CP Guidelines. Work in the fourth sector, fermentation, will focus on the production of alcoholic beverages, beginning in the new year. The changes in scope for these two sectors reflect the active role played by the Chinese Project Office in tailoring project initiatives to Chinese priorities and realities.

The Project continues to use a broad-based approach to training and awareness raising. Several of the initiatives are described elsewhere in the newsletter (see Building support). As a result of these initiatives awareness of CP is growing. On the technical front, networks of CP specialists are growing and new computer skills are being put to use in several workplaces.

Awareness of Gender Equity issues is also having an impact in the workplace. Fuyang Chemicals speeded up repairs to a day care centre, improved health conditions for workers (mostly women), and sent equal numbers of women and men to a training program on producing carbamide/urea, partly in response to requests from female workers and the Project's Chinese Gender Specialist.

Information technology (IT) is integral for implementing CP. IT skills and equipment are essential across the full range of CP-related activities. IT is used for accessing information (as evident from the growing use of the Project web site), front office and management activities, and automated control of technical processes. The Project has seen progress in all aspect of IT over the past six months. The web site has been upgraded to improve both content and access (see CP on the Web), a 10-day training course was offered in office and internet applications, and additional computers and software are being purchased.

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Helen Wei

CIDA President Dr. Len Good, Project Director Ken Parent and Resident Coordinator Dr. Robert Lao visit steel mill in Taiyuan City, Shanxi Province.

Policy-Making in Cleaner Production

Policy-making is a gradual, low profile process, marked by occasional public announcements. Project policy-related activities are designed to assist the Chinese in building a solid base of information and analysis as a foundation for their CP policy. In 1999 the fruits of that work are evident in major announcements relating to CP policy, in which Project played a significant role

Throughout the year activities were undertaken that added to the policy framework.

The first of these was participation at relevant meetings sponsored by the Chinese governmental agencies on CP policies. Workshop and discussion forums were initiated by the Environment and Resources Committee, People's National Congress, China. The topics of such meetings focused on the necessity for CP legislation and its legal contents. Project staff also attended seminars and workshops. These were sponsored by the State Economy and Trade Commission (SETC) to solicit the input from experts on the current status of CP implementation in China, and analyse its progress and identify any major problems encountered. Project locally engaged consultants travelled to the Provinces of Shaanxi and Liaoning to investigate and understand the promotion of CP relating to the objectives of reaching "Two Standards," i.e., the control of total discharge of pollutants, and the discharge concentrations at the pollution sources.

Through these exchanges of information, opinion, and recommendation from various levels of governmental officials, experts, and enterprise management, policy began to crystallise. An understanding of the policy priority and options formed, and information gaps were targeted.

The Project assisted in filling these gaps by preparing case studies and fact-finding reports. Information on four sectors was provided through studies of the following plants:

1. Chemical industries: the sulfuric acid plant at Ma-An-Shan, Anhui Province; Taiyuan Chemical Plant,. Shanxi Province
2. Petrochemical Plants: Beijing Yen-Shan Petrochemical Group (refinery, synthetic rubber, and the Second Chemical Plant)
3. Pharmaceutical: Shenyang Plant
4. Light industries: Penzhou Paper Mills, Shandong Province; and Beijing Brewery.

Cleaner Production's time has come as the brightest policy option for industrial development in China

Based on the information and case studies, the CP policy framework and its contents were further revised, and distributed to policy experts for reviewing prior to its submission to government.

Meanwhile the policy documents provided by Canadian expert on Canada, European Union countries, and the United States were being reviewed and analysed to determine what is applicable to China.

Finally, a workshop was held among Project policy experts and the members of CP Work Group of China Council on International Cooperation for Environment and Development. Each group introduced its respective programs, exchanged ideas and information, and pledged to share the results.

This policy work is being undertaken in the context of rapid economic integration, a growing number of environmental pollution problems and episodes, and intensifying domestic and global pressure for change. CP's time has come as the brightest policy option for industrial development in China.

The Chinese government signalled this recently by proclaiming its "Cleaner Production Demonstration Plan." The objectives of the "Cleaner Production Demonstration Plan" are to: raise CP awareness of the public, the governments and the management at various levels, especially at enterprise levels; promote the enterprises to meet the discharge standards; realise energy conservation, consumption reduction, pollution elimination and benefit increasing, and as a result, to make the enterprises reach the target of reform and extricate from predicament; establish management system and mechanism for government to promote CP; and improve the indicators of CP and environmental emission in demonstration cities and sectors by a big margin.

This ambitious plan represents a major commitment to fostering green industry and raising China's international image as an environmentally conscious country.

As part of the Plan, the Chinese government designated ten demonstration cities and ten industries in five sectors for achieving these objectives in cleaner production and environmental protection. The ten cities are: Beijing, Shanghai, Tianjing, Chongquing, Taiyuan, Jinan, Shenyang, Kunming, Lanzhou, and Fuyang. The industries are: metallurgical industry, petrochemical industry, ship building, nitrogen fertilizer, phosphate fertilizer, chlor-alkali, sulphuric acid, pulp and paper, fermentation, and beer-making.

Chinese expert groups are engaged in the development of CP guidelines and indicators for the city of Taiyuan, one of the ten cities. In this way the Project will continue to play an important role as China's CP policy and regulation evolves.

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CP on the Web

Project files

Project funded computer training course in Hefei, Anhui.

More and more people are using the World Wide Web to find information on Cleaner Production. The information available ranges from technical material to case studies of cleaner production in other countries. One important source for users from China, Canada and around the world is the Project's web site.

The growing exposure of the Project web site over the past six months is due to two factors: improved and expanded information on both the Chinese and English language versions of the site, and the listing of both sites on a large number of search engines. The Project Office in Beijing recently undertook full responsibility for the design and updating of the Chinese language web pages, ensuring that the site meets the needs of Chinese users. As a result, the Chinese site is generating more interest: the proportion of hits on the Chinese language site relative to the English site has more than doubled, increasing from about 13 per cent in April to 28 per cent in September.

Use of the site has increased by every measure between April and September: the number of pages requested jumped from 1201 to 2979; the number of countries with users accessing the site rose from 20 to 40; number of search engines that include the site on their lists increased from 39 to 72.

Users of the sites find project specific information, CP case studies, a slide show on ISO 14000, background information for study tour participants, and many links to other sources providing a wealth of CP information.

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Check out the China-Canada Cooperation Project in Cleaner Production web site at:
www.chinacp.com

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

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