



Environmental Health & Safety Review



Environmental Resources Management China

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环境资源管理(中国)公司



New Legislation and Regulation

SEPA's Project Priorities

Officials at the State Environmental Protection Administration (SEPA) still believe that projects listed on the Trans-Century Green Project list are the most important projects for foreign investment and participation. Currently, only a general review of these projects has been completed, and some of those findings are in the State of the Environment Report 1998 (see p. 2), and even SEPA is unsure about the exact status of each individual project. Regarding foreign direct investment in environmental projects in general, SEPA has decided that its Foreign Economic Cooperation Office (FECO) should draft guidelines regarding regulation of foreign direct investment in environmental projects because the issue has not yet been comprehensively addressed in China. ERM is expecting to learn more about these guidelines in August 1999.

SEPA is also currently drafting the 10th Five Year Plan which is expected to be completed by the end of the year. There will be a second phase of Trans-Century Green Projects based on the results of the first phase. SEPA has continued to collect projects from Local EPBs, however, these projects (administered by SEPA's Investment Division) are for domestic funding only, namely for funding from the State Development Bank, rather than for foreign involvement.

SEPA Issues Fuel Standards

In order to fully implement the *Law on Air Pollution Prevention and Control* and the *Notice Banning the Manufacture and Sale of Leaded Gasoline for Motor Vehicle Use* (State Council Document No. 1998.129) and as part of increasing efforts to control vehicle emissions, the *Hazardous Material Control Standard for Motor Vehicle Gasoline* (GWKB 001-1999) has been issued by the State Environmental Protection Administration (SEPA) to be effective on January 1, 2000. This mandatory standard, however, has currently only been circulated within national and provincial government ministries and departments as part of a

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preparatory period in which they will be required to formulate their respective and individual implementation and compliance plans.

Nine fuel components, benzene, alkenes, arenes, magnesium, iron, copper, lead, phosphorous, and sulphur, are regulated in this standard, which covers gasoline, but not diesel fuel. Compared with existing individual standards, this standard defines more stringent limits on the above ingredients and gives a detailed time schedule for implementation for various areas and industrial sectors. Beginning January 1, 2000, it will be applicable to all gasoline manufacturing and from July 1, 2000, it will be applicable to all gasoline on the market. The limits on alkenes will be applicable to Beijing, Shanghai, and Tianjin from July 1, 2000; in all other locations, excluding Heilongjiang, Jilin, Liaoning, Inner Mongolia, Ningxia, Qinghai, Gansu and Xinjiang, from January 1, 2002; and nationwide from January 1, 2003.

The sampling and testing methods for the fuel components mentioned above are also defined in the standards, and several American Society for Testing Materials (ASTM) standards are referenced within the standards as there are currently no related Chinese standards. The tight implementation schedule will be a challenge to both the petrochemical industry and to automobile manufacturers.

Water Pricing Regulatory Reform

The Ministry of Construction (MOC) is in charge of municipal water supply as well as the construction of municipal wastewater treatment facilities. Municipal Public Utility Companies (water supply enterprises), financed by local governments but nominally under the administration of the MOC, control all such urban water issues with the exception of natural water bodies controlled by the Ministry of Water Resources (MOWR). Existing prices, different from location to location and not subject to any national limit, have been decided by the local or municipal governments often based on unclear criteria (usually not market analysis). Local Public Utility Companies are in charge of collecting all fees. In the past, these fees have not always been allocated for wastewater treatment plant construction or operation or maintenance of a municipal sewage network. SEPA is not as active as the above two ministries on water pricing issues because it only administers industrial wastewater discharge fees, and is not directly involved in municipal wastewater treatment.

The MOC, jointly with SDPC, issued the *Management Regulation for Urban Supplied Water Price* in 1998 after several years of formulation and discussion. Given the awareness of the necessity of water conservation and water pricing reform as indicated by various government initiatives, reform should be a foregone conclusion. However, in reality, progress has been slow due to various reasons. Firstly, pricing is still separately administrated by the government organs mentioned above. Although it appears clear that market mechanisms are needed to gain a better understanding of the current situation and to forge adequate solutions, discussions among them are not taking place, and they remain independently motivated in preserving their own interests. Drastic solutions may be needed to overcome this. Shanghai, for example, has been discussing reforms that would result in the establishment of private wastewater treatment companies which would be authorized to collect wastewater tariffs in return for full responsibility over ensuring treatment plant operation, maintenance and loan repayment. Secondly, the willingness of local governments in prioritizing water pricing reform is determined by complex local social, institutional and financial arrangements. Social unrest is a major concern, and when coupled with the lack of an effective project approval and financing infrastructure, local governments have more than enough incentive to act slowly on reforms.

For example, since the *Management Regulation for Urban Supplied Water Price* was promulgated in September 1998, no major progress has been made in its implementation. The MOC required that all cities formulate their own implementation guidelines to the Regulation by the end of 1999. The MOC is not even sure if this deadline will be met and, consequently, is in the process of discussing with SDPC the selection of a group of pilot cities for water pricing reform, which will be finalized in June 1999. The selection criteria is

based on income, and on the complexity of potential impact caused by the water pricing reform. The results will be used to amend the regulations and to encourage swifter, more effective reforms.

State of the Environment Report 1998

This report was released by SEPA on June 6 and outlines the major environmental issues in China, usually reflecting what the government perceives as the most urgent needs. The topics of particular focus this year were water body pollution, water resource shortages and flood disasters; coal smoke pollution as the leading air pollution issue; urban environmental conditions such as solid waste, water pollution and noise pollution caused by swelling population densities and auto ownership; and, a decrease in arable land and the lowest per capita forestation in the world.

An Environmental Tax in China?

Several leading academics as well as the Chinese People's Political Consultative Conference (CPPCC) have suggested that an environmental protection tax be levied on enterprises to sharpen their awareness of environmental protection and to increase their responsibility in this area. Such a "green tax" system would take into account the damage an enterprise has caused or will cause to the environment. Theoretically, heavier taxes would be levied on those using precious natural resources or causing excessive pollution and lighter taxes would be levied on those using cleaner technologies. Measures such as restricting the dumping of industrial pollutants and phasing out obsolete equipment have already been defined, however, local enforcement issues and increased costs for enterprises have prevented successful implementation of these measures.

The Environment is a Public Concern, but not the Top Priority A survey by SEPA and the Ministry of Education, revealed that, although 56.7 percent of Chinese people said pollution in China is "very" or "relatively" serious, they also said the country's development plan should focus on the economy, science and technology, population issues, and social benefits before environmental protection. The survey of 9,202 people between the ages of ten and 65 in 31 provinces, municipalities and autonomous regions was conducted in July and August 1998. It also revealed that people were, in general, satisfied with the environmental changes over the past few years (43.3 percent felt their immediate natural surroundings had improved, while 25 percent said the environment was "deteriorating") and think that local conditions will get better (47 percent believed it would "improve", 11.6 percent said that it would "deteriorate"). The survey revealed that concern for the environment increased with education, however, a very low understanding of environmental protection exists (of the 13 questions concerning environmental protection, the average respondents answered correctly only 2.8 times).

ERM Quality Index of City Life (Inaugural List, April/May 1999)

With China's rapid economic development, people's living standards have increased and people are more aware of their living environment. As Chinese people living in China's largest cities increasingly demand clean air and an overall improvement in their quality of life, policy makers and urban planners will need to strike a balance between environmental protection and economic development when seeking to ensure social stability and achieve sustainable development for the future. The State Environmental Protection Administration (SEPA) and the China Environmental Supervision Center publish the air quality statistics for major cities every week. ERM has combined these weekly figures (from April and May 1999) with other key environmental, health and economic figures from the Urban Statistical Yearbook of China from 1998 to design an overall estimation of quality of city life for 37 major Chinese cities. The index contains four environmental and four socio-economic parameters. The environmental parameters included air quality, noise, green area, and industrial wastewater. The socio-economic parameters included average annual salaries, expenditures on education, physicians per million people, and the average living space per person. Each score in the table below has no individual unit of measure, rather, standardized scores of between 0 and 1 were assigned for each parameter, weighted equally and then summed to create an "Environmental Quality Index" and a "Socio-economic Quality Index". The higher the index, the better the conditions.

Rank	City	Air Quality Index	Green Area	Noise	Industrial Waste Water	Environment Index	Wages	Education	Medical Care	Living Space	Socio-economic Index	Overall Index
1	Shenzhen	1	1	0.11	0.43	2.54	1	1	0.86	0.53	3.39	5.92
2	Shantou	0.91	0.52	1	0.96	3.39	0.28	0.14	1	0.38	1.8	5.19
3	Zhuhai	0.92	0.84	0.22	1	2.98	0.7	0.4	0.31	0.41	1.82	4.81
4	Suzhou	0.92	0.27	0.83	0.93	2.95	0.32	0.07	0.41	0.2	0.99	3.94
5	Xiamen	1	0.26	0.07	0.73	2.05	0.58	0.27	0.36	0.4	1.62	3.67
6	Gullin	0.91	0.67	0.25	0.72	2.54	0.08	0.04	0.7	0.18	1.01	3.55
7	Nanjing	0.79	0.84	0.58	0.23	2.44	0.36	0.09	0.49	0.08	1.02	3.46
8	Dalian	0.88	0.81	0.26	0.54	2.49	0.31	0.12	0.5	0.04	0.97	3.45
9	Shijiazhuang	0.57	0.49	0.8	0.89	2.75	0.16	0.09	0.16	0.21	0.62	3.37
10	Guangzhou	0.51	0.35	0.52	0.35	1.73	0.75	0.17	0.54	0.16	1.62	3.35
11	Hangzhou	0.76	0.07	0.46	0.85	2.15	0.42	0.09	0.52	0.1	1.13	3.28
12	Shanghai	0.63	0	0.49	0.38	1.49	0.57	0.46	0.58	0.15	1.75	3.24
13	Ningbo	0.98	0.29	0.11	0.52	1.9	0.5	0.12	0.46	0.23	1.3	3.2
14	Changsha	0.79	0.38	0.72	0.95	2.84	0.11	0.05	0.1	0.07	0.34	3.18
15	Beijing	0.24	0.87	0.22	0.28	1.61	0.53	0.16	0.58	0.22	1.49	3.1
16	Qingdao	0.8	0.5	0.28	0.39	1.97	0.23	0.08	0.42	0.13	0.86	2.83
17	Wenzhou	0.86	0.31	0.2	0.13	1.5	0.23	0.13	0.52	0.41	1.29	2.79
18	Fuzhou	0.84	0.05	0.08	0.08	1.05	0.26	0.07	0.38	1	1.72	2.77
19	Yantai	0.77	0.47	0.06	0.87	2.17	0.1	0.06	0.18	0.22	0.56	2.74
20	Kunming	0.82	0.22	0.22	0.47	1.73	0.25	0.1	0.48	0.13	0.96	2.69
21	Jinan	0.44	0.48	0.15	0.3	1.37	0.28	0.05	0.63	0.21	1.17	2.54
22	Hefei	0.83	0.49	0.51	0.1	1.93	0.1	0.03	0.38	0.05	0.56	2.49
23	Chengdu	0.71	0.33	0.21	0.21	1.46	0.19	0	0.59	0.23	1.01	2.47
24	Qinhuangdao	0.66	0.53	0.23	0.29	1.71	0.2	0.09	0.38	0.07	0.74	2.45
25	Lianyungang	0.78	0.45	0.09	0.37	1.69	0.09	0.07	0.47	0.12	0.75	2.44
26	Changchun	0.58	0.74	0.05	0.3	1.67	0.2	0.07	0.46	0.04	0.76	2.43
27	Guiyang	0.67	0.25	0.08	0.79	1.79	0.07	0.04	0.5	0.01	0.62	2.41
28	Tianjin	0.52	0.09	0.1	0.78	1.49	0.27	0.17	0.3	0.09	0.83	2.32
29	Urumqi	0.37	0.15	0.28	0.74	1.53	0.22	0.06	0.43	0.08	0.78	2.31
30	Taiyuan	0.31	0.25	0.37	0.52	1.44	0.11	0.02	0.46	0.04	0.63	2.07
31	Xi'an	0.4	0.69	0.38	0.05	1.52	0.06	0.02	0.33	0	0.4	1.92
32	Wuhan	0.68	0.49	0.08	0.2	1.45	0.11	0	0.27	0.05	0.46	1.91
33	Shenyang	0.37	0.45	0.1	0.12	1.05	0.05	0.1	0.39	0.06	0.6	1.65
34	Zhengzhou	0.42	0.41	0.22	0.23	1.29	0.17	0.04	0	0.08	0.28	1.57
35	Chongqing	0.57	0.18	0	0.28	1.03	0.08	0.05	0.19	0.03	0.35	1.38
36	Harbin	0.59	0.07	0.12	0.15	0.93	0.01	0.05	0.11	0.06	0.23	1.16
37	Hohot	0	0.33	0.02	0	0.35	0	0.12	0.23	0.08	0.44	0.79

In the table, Shenzhen, Shantou, Zhuhai, Suzhou and Xiamen rank in the top five places, all benefiting from high Environmental Indexes (all greater than two). While Shantou has the highest Environmental Index, Shenzhen is first in terms of Socio-economic Index and Overall Index. Beijing, Tianjin, Shanghai, and Chongqing ranked 15th, 28th, 12th and 35th, respectively, despite flourishing development (their Environmental Indexes are all less than two). ERM will continue to evaluate environmental and socio-economic conditions, as well as our choice of parameters and our analytical methodology, to design an index system that can serve as a reference tool for international agencies, multinational corporations and government officials in their respective decision-making processes.



Regional News

Guangzhou Initiatives

The *Guangzhou Municipal Management Method For Major Construction Projects* was promulgated in January and became effective from March 1999.

The *Management Provisions for Receipt and Disposal of Ship Waste in the Guangzhou Harbor* became effective in March 1999. They are based on the *Water Pollution Prevention and Control Law* (1996) and the *Guangzhou Municipal Drinking Water Resource Pollution Prevention and Control Provision*.

Guangzhou Municipality and four other cities in Guangdong have been defined as Class II Air Quality Areas and are to be regulated as such by the national air quality standards. In addition, 16 nature reserves and historic sites have been defined as Class I Areas.

Guangzhou is one of 12 cities in China that is promoting vehicles that use natural gas. Guangzhou plans to finish refurbishing 5,000 public buses and 15,000 taxis (most of the fleet) before the year 2001. In addition, 50 natural gas stations will be constructed. Guangzhou will also define a municipal vehicle emission pollution discharge standard.

Shanghai Initiatives

Shanghai has become the second municipality after Beijing to implement new vehicle emissions standards in advance of national regulations. The *Shanghai Light Vehicle Emission Standard* (DB 31/29-1998), equivalent to European standards of 1992, became effective on 1 July and applies to all light vehicles. Light-duty vehicles less than 2.5 tons and having no more than six seats must comply with the following emission limits: CO of less than 3.16g/km, and Hydrocarbon and NOx each less than 1.03g/km.

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Services Include:
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The Shanghai Municipal People's Congress has identified a list of environmental legislation to be amended to meet the challenges of development. Legislation includes: the *Shanghai Environmental Protection Regulation* (1995), the *Upper Huangpu River Water Source Protection Regulation* (1985), the *Shanghai Implementation Measures of the Law on Land Management* (1994), the *Shanghai Water Discharge Administration Regulation* (1996), and 99 other regulations to be revised by the end of 2000.



Recycling

Used Batteries to be Recycled in Beijing

A new program has been started to collect and recycle a large number of used batteries discarded by owners of mobile phones and other communication tools in Beijing. A "Green Passage" program for collecting and taking used waste batteries to treatment centers has been set up by the Zhonglu Industrial Co. Ltd. and Motorola (China) Electronics Ltd. in Beijing. Officials from the two companies say they are making an effort to reduce pollution, as battery waste has come under increased scrutiny. This is the beginning of a broader awareness of life-cycle management taking shape in China.

ERM Reports

WATER PRICING ISSUES AND POTENTIAL REGULATORY REFORMS

This report takes a closer look at both urban and rural water pricing issues facing China today, including the fractured administration of resources and treatment among government ministries. It discusses specific regulatory measures already underway and outlines potential concerns for international actors in the water treatment field.

Visit our website at: www.ermchina.com

ERM China - Beijing Office:
Seventh Floor
No. 1 Andingmen Dongdajie
Beijing 100007 China
Tel: +8610 6406 2281
+8610 6402 6986/6987
Fax: +8610 6400 7694
E-mail: post@ermchina.com

ERM China - Shanghai Office:
Suite 2401, Harbor Ring Plaza
18 Xi Zang Zhong Road
Shanghai 200001 China
Tel: +8621 5385 2341/2342
+8621 6439 9032
Fax: +8621 6469 2185
E-mail: shanghai@ermchina.com

ERM China - Guangzhou Office:
Suite 37F, Guangfa Finance Center,
83 Nong Lin Xia Road
Guangzhou, 510083, China
Tel: +8620 8731 0216/0226
Fax: +8620 8731 0199
E-mail: guangzhou@ermchina.com

ERM Hong Kong
10/11 Floor, Heary Tower
9 Chatham Road
Tsimshatsui, Kowloon
Hong Kong
Tel: +852 2772 9700
Fax: +852 2723 5660

**Environmental
Resources
Management**
环境资源管理(中国)公司
Beijing
Seventh Floor
No.1 Andingmen Dongdajie
Beijing 100007, China
中国北京安定门东大街一号七层
电话 Telephone +86 10 6405 2281
传真 Facsimile +86 10 64007694
E-mail post@ermchina.com
网址 Website www.ermchina.com

Dear EHS Reader:

We trust that you find the attached edition of our EHS Review newsletter to be a useful tool for following regulatory policies and for educating your colleagues worldwide about the changing environmental landscape in China. If you are worried about environmental compliance, new regulations, or trends, this monthly newsletter should form an effective baseline of knowledge for you, and we hope you find it helpful.

If you would like further details about the content, or have suggestions for how we can improve it, we as always welcome your comments. If you are a first time subscriber, please let us know if you are interested by returning this fax form or calling one of us for further details.

Kind regards,
Peng Yan, Jim Stover and Guo Qian



The EHS Review

This monthly newsletter is designed to keep companies and investors aware of the latest regulations in the environmental sector. We are constantly looking for ways to keep clients ahead of future standards, fees, fines and enforcement. The EHS Review serves as a compliance checklist for plant managers and as a strategic planning guide for corporate managers and business development teams in China and abroad. It contains nearly twice as much information as our leading competitor, and it is delivered twice as often at nearly half the price.

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