

CSR ASIA

Corporate Environmental Reporting and Disclosure in China

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Executive summary

There is increasing pressure being put on companies in China, from a number of different sources, to engage in voluntary environmental reporting and disclosure. There has also been pressure from government, the State Environmental Protection Agency (SEPA), the Ministry of Finance and China Securities Regulatory Commission (CSRC) increasing the amount of mandatory environmental disclosure being required from companies.

At the local government level we have seen an increasing number of initiatives aimed at encouraging companies to improve their disclosure and reporting. These have included the development of indices, rating schemes and other incentive mechanisms. However, there have also been many instances where local government has used the media to ‘name and shame’ companies that cause large amounts of pollution. Some cities have published ‘red lists’ and ‘black lists’ of the worst polluters.

Survey data reveals that environmental reporting and disclosure, although still uncommon, is increasing rapidly. Whilst what exists is largely due to the mandates of government and other public agencies, increasingly other users of environmental information, such as financial institutions and investors, are demanding information on environmental risks. We are also seeing an increase in environmental reporting and disclosure linked to standards and certificates such as IS14001 and SA8000 and green labeling initiatives.

With both central and local governments seeing sustainable development as a priority for China and with the China Securities Regulatory Commission expressing some concerns over environmental risk exposure of listed companies, we are likely to see more demands for reporting and disclosure. Increasingly, in the future however, we are likely to see a switch from pressure-oriented to market-oriented reporting.

1. Introduction

1.1. Corporate environmental reporting and disclosure

Given the fact that corporate financial performance is related, in part, to a company's environmental performance, stakeholders are increasingly paying more and more attention to environmental issues in a company. Investors and financial analysts need environmental information to evaluate overall performance and estimate environmental risks; governments need information to implement environmental regulations; and consumers need the information to protect their own rights. As a response, many companies have taken on the responsibility for environmental reporting and disclosure, by which they can provide information about environmental performance and sometimes corporate social responsibility and sustainable development, meeting the needs of the financial markets and at the same time providing itself with a positive environmental image.

1.2. Mainstream reporting and disclosure

In response to global trends, international organizations produce guidelines and principles to help companies undertake environmental reporting and disclosure. The mainstream guidelines include: CERES Principles released by Coalition Environmentally Responsible Economies in 1992; PERI Guidelines released by Public Environmental Reporting Initiative in 1993; The Eco-Management and Auditing Scheme released by European Commission in 1993; ISO14000 Standards released by International Organization for Standardization in 1996; and, Sustainability Reporting Guidelines by Global Reporting Initiative in 1999 and updated in 2002. Some other guidelines and principles include Goldman Sachs Best Practices, Malcolm Baldrige National Quality, Social Accountability 8000, BCSD Corporate Governance Principles, Global Sullivan Principles, and AA1000. We are now seeing many international companies releasing environment-related information in their annual

reports and many publish environmental reports separately.

1.3. Corporate environmental reporting and disclosure in China

Since the founding of the stock exchanges in early 1990s, regulators in China have released several regulations aimed at improving corporate disclosure and reporting. However, most measures only focus on financial performance rather than social and environmental issues. Environmental reporting and disclosure were, until recently, not so popular and annual reports of listed companies rarely include environment issues to date.

However, the situation is set to change and officials are increasingly keen to lock companies into the growing trend towards sustainable development in China. The government has released much stricter laws and regulations on corporate environmental behaviour; there is growing public concern over environmental problems caused by enterprises; and some foreign investors require high environmental standards from their business partners and supply chains. Such pressures are increasingly forcing Chinese enterprises to improve their environmental reporting and disclosure. Many are realizing that this can be linked to cost savings, subsequent improved financial performance and reputation and brand benefits.

2. Laws and Regulations

2.1. Environmental laws and the legal system

Subject to the Constitution of the People's Republic of China (PRC), the legal provisions related to the environment of China consists of laws, provisions, regulations, ministerial and local regulations, all of which are based on the Environmental Protection Act of the PRC. There are both national and local provisions therefore. The laws and regulations form the legal system of environmental protection in China, which can be classified as following (and illustrated in Figure 1¹):

- (a) The Constitution of the PRC²
- (b) The Criminal Law of the PRC³
- (c) The Environmental Protection Act of the PRC⁴
- (d) Specialized laws on environmental protection⁵
- (e) Laws on resource protection
- (f) Provisions for environmental protection, providing guidance on implementing laws, e.g. from the State Environmental Protection Administration (SEPA), the Ministry of Finance (MOF), China Securities Regulatory Commission (CSRC)
- (g) Ministerial regulations released by departments under the State Council
- (h) Local provisions and regulations, which seek to address particular local environmental problems
- (i) Environmental standards, including environmental quality and emission standards
- (j) Multinational environmental agreements (MEAs) to which China has agreed
- (k) Others
- (l) (See Annex 1 for details information of the environmental laws and regulations)

¹ Review of Chinese legal system for environmental protection, <http://www.chinaenvironment.com>

² [1982, revised in 2004]. Article 26 states that the nation protects and improves environment, and prevents pollutions.

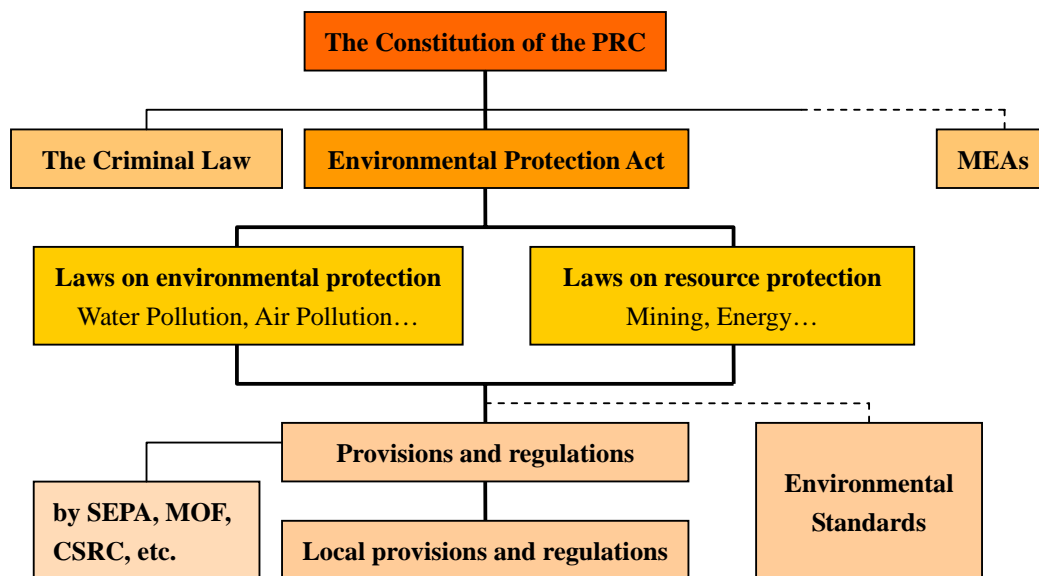
³ [1979, revised in 1999]. Article 9 states that who destroys environmental protection regulations should take the penal offense

⁴ [1989]. It is the base law of environmental protection and was proved by the People's Congress of the PRC.

⁵ such as the Prevention and Control of Air Pollutions Act of the PRC, the Prevention and Control of Solid Wastes and so on

Within the legal system described above there are particular provisions related to corporate environmental reporting and disclosure. The Constitution states that the people manage state affairs, economic and cultural affairs, and social affairs by various means in accordance with the law. In terms of regulation, this principle accords the people (or their government representatives) the right to supervise the environmental work of state authorities and enterprises, as well as discipline organisations for illegal behavior.⁶ In the Prevention and Control of Water Pollution Act of the PRC, Article 14 states that enterprises should report to government details of the emission and treatment facilities. Enterprises with excessive emissions must make plans to deal with them and report to the local environmental protection bureaus. Enterprises that provide incorrect information can be punished. In addition, the Environmental Protection Act of the PRC addresses enterprises that refuse to allow inspections by any level of government, or refuse to report to the government the details of emissions, and imposes fines on them.

Figure 1 The Legal System for Environmental Protection in China



⁶ Wang Hua, Bi Jinnan and Wheeler David, Public rating of industry's environmental performance: China's Green Watch Program, Development Research Group of World Bank, Chinese Research Academy of Environmental Sciences and School of the Environment of Nanjing University. p5

In terms of corporate environmental reporting and disclosure, the legal system in China mainly provides frameworks that require enterprises to report to the government when they produce any pollutant, where their projects have negative environmental impacts, or where any operating change occurs that affects the environment. Failing to do this will result in a punishment and fine. (See details in Annex 2)

However, these laws and regulations are very general and precise clauses related to corporate environmental reporting do not usually exist in the legal text except within the Environmental Impact Assessment (EIA) Act and the Cleaner Production Promotion Act. The EIA Act requires all major projects to implement an EIA and provide an EIA report to the government. Projects cannot be launched until the environmental protection bureaus approve the report. A recent campaign by the State Environmental Protection Administration (SEPA) illustrates its commitment to implementing EIA reports. Thirty major projects in China, including three subcontracts connected to the Three Gorges Dam Project were publicly criticized by SEPA for the lack of EIA reports. Consequently, these projects were actually halted until the EIA reports were submitted⁷. Within the Cleaner Production Promotion Act⁸, Article 17 states that environmental protection bureaus can publish in the mass media the names of polluting companies. Article 31 states that non-compliant companies must publicly announce the details of their emissions, periodically. This Act was implemented in late 2004. Since then many provinces have published and criticized poorly performing enterprises and newspapers are encouraged to write articles about companies' pollution problems.

In the Cleaner Production Promotion Act, Article 28 states that cleaner production auditing should be implemented in companies who produce exceeding pollutants;

⁷ <http://www.sepa.gov.cn>

⁸ Full legal text available at http://www.chinacp.com/eng/cppolicystrategy/cp_law2002.html

regular cleaner production auditing should be implemented in companies who use or produce poisonous or harmful materials. Companies who are not compliant with the Act will be warned by the environmental bureaus above county level and should be improved in given period, otherwise companies should pay a fine of no more than 100,000 RMB.

In response to the Cleaner Production Promotion Act, in September 2004, Guangdong Environmental Protection Bureau released a list of 33 companies who were required to accept cleaner production auditing and publish in the media details of their principle pollutants. These companies were:

1. Zi Ni State-Owned Sugar-Refinery of Guangdong Province
2. Guangzhou Paper-Making Co. Ltd.
3. Factory-A of Guangzhou Wei Da Gao Industry Co. Ltd.
4. Meishan-Mali Barm-Making Co. Ltd. of Panyu, Guangzhou
5. South Alkali-Making Co. Ltd. of Guangdong Province
6. Datansha Waste Water Treatment Plant of Guangzhou City
7. Xinhua Water-Purifying Plant of Huadu, Guangzhou
8. Liede Waste Water Treatment Plant of Guangzhou City
9. Huangpu Power Plant of Yuehua Power Co. Ltd. of Guangdong Province
10. Guangzhou Subsidiary Company of SinoPec
11. Panyu Lianhuashan Power Co. Ltd.
12. Yongda Group Co. of Guangzhou City
13. Guangzhou Mingzhu Power(Group) Stock Co. Ltd.
14. Nanshan Waste Water Treatment Plant of Shenzhen City
15. Nanhai Jiangnan Power Co. Ltd. of Foshan City
16. Nanhai Guicheng Power Plant of Foshan City
17. Sanshui Hengyi Coal Power Plant Co. Ltd. of Foshan City
18. Nanhai First Power Plant of Foshan City
19. Nanhai Nanlian Electricity Co. Ltd. of Foshan City
20. Shakou Power Co. Ltd. of Foshan City
21. Shaoguan Steel Group Co. Ltd. of Guangdong Province
22. Nanxiong First Paper-Making Plant of Shaoguan City, Guangdong Province
23. Shaoguan Power Plant
24. Factory-B of Pingshi Power Co. Ltd. of Shaoguan City
25. Zijin Dongjiang Paper Co. Ltd. of Heyuan City
26. Zhengxing Textile Co. Ltd. of Zhongshan City
27. Taishan Chemical Pharmacy Co. Ltd. of Jiangmen City
28. Kaiping Fecula-Making Plant of Jiangmen City

29. Jiangmen Beijie(LianYing) Power Plant
30. Guangqian Sugar Development Co. Ltd. of Zhenjiang, Guangdong Province
31. Maoming Petroleum Chemical Co. of SinoPec Group
32. Maoming Subsidiary Company of SinoPec
33. Fogang Monosodium Glutamate Plant of Qingyuan City

Box 1. Example of an EIA Report

The information requirements and form of an EIA Report provided by the Environmental Protection Bureau of Xicheng District, Beijing City are as follows:

1. Basic introduction of the project
 - Title, respondent, location, budget, contact, etc.
2. Overview of the situation where the project is located
 - Natural environment
 - Social environment
3. Overview of environmental quality issues
 - Key environmental problems in the location
 - Key environmental aspects that should be protected
4. Standards to be applied
 - Standards of environmental quality
 - Emission standards
 - Indicators
5. Technical analysis
 - Details of technical analyses
 - Working procedures that produce pollutants
6. Principle pollutants and emissions
 - Air pollutants
 - Waste water
 - Solid wastes
 - Noise
 - Others
7. Environmental impact analysis
 - Environmental impact when the project is being built
 - Environmental impact when the project is being run
8. Measures to deal with the problems
 - Air pollutants
 - Waste water
 - Solid wastes
 - Noise
 - Others
9. Conclusions and recommendations

Source: <http://www.bjxch.gov.cn>

Box 2. Example of an Environmental Checklist for Cleaner Production (Pollution Prevention) for Chinese Breweries

This checklist was prepared by the China-Canada Co-operation Project on Cleaner Production to assist breweries in China to prepare data for their initial cleaner production or pollution prevention audits.

1. GENERAL INFORMATION

- 1.1 Name of the brewery:
- 1.2 Address
- 1.3 Information concerning the general manager
- 1.4 Information concerning the person completing the checklist:
- 1.5 Is the brewery a state enterprise or a private enterprise?
- 1.6 In what year did the brewery start its operation?
- 1.7 List types of beer manufactured at the plant?
- 1.8 Is the brewery operating seven days a week, 24 hours per day?
- 1.9 Indicate the shut down periods (if any)?
- 1.10 How many employees are presently working at the brewery?

2. CONCERNING THE FACILITY

- 2.1 What is the main source of energy?
- 2.2 What is the main source of fresh water?
- 2.3 What quantity of fresh water is used per day, per year?
- 2.4 Does the fresh water have to be treated before entering the beer making process?
- 2.5 Is there a general flow sheet showing each section of the brewery in detail?
- 2.6 What types of fuels are used?
- 2.7 Is steam required in the process?
- 2.8 Give the following information concerning raw materials?
- 2.9 What is the type and quantity of solids are produced?

3. WASTEWATER TREATMENT PLANT

- 3.1 Is the brewery equipped with an operational wastewater treatment plant?
- 3.2 What is the average quantity of wastewater generated?
- 3.3 Is the treated effluent sampled manually or automatically?
- 3.4 Is there any chemical analysis performed on the raw effluent arriving to the wastewater plant?
- 3.5 What percentage of the effluent at the brewery is treated by the wastewater treatment plant?
- 3.6 Are the effluents coming from the brewery collected into separate sewers before arriving at the wastewater treatment plant?
- 3.7 What are the chemicals, if any, used to treat the wastewater?
- 3.8 Where are the removed solids disposed?

3.9 What is the total flow rate of the treated effluent?
3.10 What type of equipment is used to measure effluent flow rate?
3.11 Indicate which of the following parameters are subjected to the regulation (please add any other regulated parameters that do not appear in this list)?
3.12 Are there other local regulations that must be followed regarding effluent quality?
Source: <http://www.chinacp.com>

2.2. Regulations by State Environmental Protection Administration (SEPA)

The following regulations and provisions are relevant to environmental disclosure and reporting:

(a) *Management Provision on Reporting and Registration on Pollutant Emissions (1992)*

This provision requires enterprises report to the governments the details of the pollutants including substances, amounts, density, where pollutants go and how they are managed. In the case of any significant changes, enterprises report these changes and their effects to the government.

(b) *Environmental Management Provision for Construction (1998)*

This provision requires enterprises that run construction projects to cover all the procedures for EIA reports, forms and registration procedures. In the case of any significant changes in the design of the construction, enterprises must report to the government again. After projects are completed, the projects should be inspected by the government.

(c) *Bulletin on Information Disclosure for Corporate Environmental Performance (2003)*

The Bulletin stipulates that non-compliant enterprises should disclose their corporate environmental performance to the public. According to the Bulletin, local environmental protection bureaus (EPBs) should release corporate

non-compliance lists periodically to the public via the local media (newspaper, television, etc.). Enterprises that have been put onto the list, must disclose their environmental performance within six months. From 2004, listed enterprises must disclose their environmental performance information of the previous year by March 31st every year. Non-listed enterprises can report their environmental performances on a voluntary basis. This bulletin is actually based on the Cleaner Production Promotion Act. (See Annex 3 for full text of the Bulletin)

Box 3. Compulsory Disclosure for a Non-Compliant Company

According to the Bulletin on Information Disclosure of Corporate Environmental Performance, non-compliant companies in the polluting list released by environmental protection bureaus are required to disclose publicly the following environmental information.

1. Corporate environmental policy
2. Gross emission including:
 - Total amount of waste water and the pollutants inside
 - Total amount of waste air and the pollutants inside
 - Total amount of solid waste produced and disposed amount
3. Corporate solutions to pollutions, including
 - Investment of key projects to deal with pollutants
 - Does the emission meet the local/national standards?
 - The amount of disposed or reused solid wastes
 - The amount of disposed dangerous wastes
4. Compliance with laws and regulations
 - Records of non-compliance with laws and regulations
 - Documents of administrative punishment
 - Details of accidents and other reported incidents
5. Environmental management, including:
 - Emission fees related to laws and regulations
 - The emission fees that have been submitted so far
 - Reports to government about emissions?
 - Applications for emissions permits
 - Does the channel of emission meet the relevant standards?
 - Has the company installed any automatic monitoring instruments in the key channels for emission?
 - Do the instruments work normally?
 - The normal operating rate of the environmental facilities⁹
 - The rate of compliance of “Three-Simultaneity”¹⁰

⁹ The normal operating rate of environmental facilities means the percentage of the days when environmental facilities normally work.

Source: Bulletin on Information Disclosure of Corporate
Environmental Performance

(d) Regulations on the Environmental Inspection of Companies Accessing or Refinancing from the Stock Market (2003)

This regulation aims to prevent environmental risks associated with listed companies from certain heavy polluting industries such as metal, chemistry, oil, coal, thermal power and construction materials industries. Companies are required to meet the standard of pollutant emissions and follow the environmental rules released by the government. (See Annex 4 for full text of the regulation)

Box 4. Announcement of Environmental Inspection for Baosteel

The following is part of the announcement by SEPA on Oct.15th, 2004 for the refinancing application of the Shanghai Baosteel Co. Ltd. according to the Regulations for Environmental Inspection on Companies Accessing or Refinancing from the Stock Market (2003).

Shanghai Baosteel Co. Ltd. is a company listed in Shanghai Stock Exchange. Its key businesses are steel, coal, electricity, gas and logistics. In 2004, Shanghai Baosteel Co. Ltd. is planning to issue new shares in the stock market, to collect capital to acquire other subsidiary companies of Baosteel Corporation Group.

According to the Bulletin (Huan Fa, 2003, 101#) and based on the primarily inspection by the Shanghai Environmental Protection Bureau, SEPA examined environmental aspects of Baosteel Co. Ltd. and the enterprises it wishes to acquire. The conclusions are:

- All enterprises are compliant with EIA regulations and the requirement of “Three at the Same Time”;
- The rate of stability of the environmental facilities is higher than 95%;
- The emissions meet the national standards with authorized permits;
- The emission fees have been submitted to the government as required;
- The capital collected from the stock market is compliant with the national industrial policy and environmental policy;
- No other environmental default is found.

As a result, SEPA approves the environmental inspection of Baosteel Co.

¹⁰ When enterprises implement a new project, installation for preventing and controlling pollution and other pollution hazard must be designed, built and put into operation simultaneously with the principle part of the project. This rule is called “Three-Simultaneity”.

Ltd. and hereby publicly makes an announcement of the inspection from Oct. 15th 2004 to Oct. 24th 2004 on the SEPA website.
Source: <http://www.zhb.gov.cn>

2.3. Regulations by the Ministry of Finance (MOF)

Regulations released by the MOF include the Accounting Act of the PRC (1985, revised in 1999), the China Accounting System (Cai Kuai Zi, 2000, No.25), the Regulations on Enterprise Accounting (1993), and the Standard of Enterprise Accounting and Issues of Concern (2000). Among them, only a few clauses are related to environmental issues, mainly focusing on accounting standards. With regard to a company's balance sheet, in 1985, the MOF issued a document stating that in the item "Workforce costs and enterprise management costs ledger", pollutant emission fees should be separately listed (Cai Kuai Zi, 1985, No.1). According to the latest regulations, "pollutant emissions fees" and "ecological improvement fees" should be attributed to "management cost" while "losses and compensation raised from pollutions" should be attributed to non-management payout. In the Standard on Enterprise Accounting and Issues of Concern, it is required that enterprises should confirm and disclose any issues of concern caused by pollutions.¹¹

Box 5. Annual report of the Beijing Jingneng Thermal Power Co. Ltd.

Here is an example of the environmental accounting information in the annual report of a company listed in Shanghai Stock Exchange. The information is listed under the section of "Important Notes" in the "Financial Report".

An environmental subsidy is given by the Beijing Environmental Protection Bureau from the levy of SO₂ emission fees. This subsidy is required to be used to improve the environmental facilities in the company. The subsidy in 2003 is 10,000,000 RMB.
--included in the section of "Specific payable"

¹¹ Lv Lu, Study on Corporate Environmental Accounting and Disclosure (theses for master degree), Xiamen University, 2001. p36.

The emission fee is 25,296,023.39 RMB
--included in the section of “Other payout in cash”
In 2003, the company received the environmental subsidy of 10,000,000 RMB from the Beijing Environmental Protection Bureau. The subsidy will be specifically used to improve the desulphurization facility of 3# workshop.
--included in the section of “Other income in cash”
Source: Annual report 2003 of the Beijing Jingneng Thermal Power Co. Ltd. <http://www.cs.com.cn>

2.4. Regulations by China Securities Regulatory Commission (CSRC)

Although CSRC is not an environmental organization, it does include some environment concerns in the legal documents associated with listed companies. These include:

(a) Prospectus of Initial Public Offerings (IPO)

The prospectus of the IPO should analyze the environmental risks (including the political risks caused by environment issues) of the projects for which enterprises raise money from the stock market. Enterprises that are involved in polluting or dangerous businesses should disclose measures to protect the environment.

(b) Application files for IPO

Article 8-5 requires the enterprises applying for IPO to present a statement clarifying that their business and the proposed projects for which enterprises raise money from the stock market, would meet the environmental standards. Enterprises from polluting industries must provide documents issued by provincial environmental protection bureaus confirming this.

(c) Legal Statement and Working Reports of Lawyers for IPO

A Legal Statement should include issues as environmental protection measures, product quality and technology standards. Potential costs due to environmental problems should also be included. The Working Reports of Lawyers should address whether the issuer has debts caused by environmental issues and their associated impacts on the IPO.

Box 6. The Prospectus of IPO of Guangzhou Hedy Computer Co. Ltd.

The following environmental information is from the Prospectus for IPO of the Guangzhou Hedy Computer Co. Ltd., which has been listed on the Shenzhen Stock Market in 2004.

The Environmental Protection Bureau of Guangdong Province approved the EIA report on Apr.11th 2003 (Yue Huai Han [2002]263#), which meant the issuer (Hedy Computer Co. Ltd.) could implement the projects in the factory that was currently being used.

--included in "the view of Board and Shareholder Convention on the usage of the capital collected", in Chapter 11, usage of the capital collected .

The issuer does not belong to any heavy polluting industry and has no serious environmental problems. Given the guarantee of the issuer and as a result of auditing by the law firm, the issuer did not have any illegal behaviour associated with the environment over the past three years. In conclusion, the law firm confirms that the business of the issuer is compliant with national environmental laws and regulations.

--included in "the environmental protection, product quality standards and technical standards", in the legal statement by Z&T Law Firm.

2.5. Regulations by other departments under the State Council

(a) *Management Provision of China Energy Labeling*

This provision was jointly released by the National Development and Reform Commission (NDRC) and the Administration of Quality Supervision, Inspection and Quarantine of the PRC in 2004. It developed a list of products that require energy labeling. Producers must provide energy labeling on products or their packages, and provide the details within product manuals.

(b) *Provisional Measure on Investment Projects Approval*

This provisional measure was released by NDRC in 2004, which provided a list of projects requiring environmental approval. Enterprises have to get approval from the government if the projects they invest fall onto the list. Documents to be

reported include resources and energy consumption analyses and ecological impact assessment.

Regulations above particularly reflect the concerns of the Chinese government regarding ongoing energy shortages. The government is keen to control the energy consumption associated with both products and projects.

2.6. Regulations and measures by local governments

Local governments have also released a number of regulations and companies need to make sure they are aware of local regulations or local variations of national regulations. Some of the regulations are responses to the documents produced by SEPA and other ministerial departments. Others are initiated by local governments themselves. Table 1 provides examples of some of the regulations and measures taken by local governments.

Table 1 Regulation and Measures by Local Governments

Area	Year	Measure
Dalian City	2004	Environmental inspections required for listed companies, those that cannot pass the inspection will be publicly disclosed
Dalian City	2004	Corporate reporting required in the ship recycling industry in order to strengthen the environmental management of shipping, dismantling and disposal of used ships
Heilongjiang Prov.	2004	Corporate environmental disclosure encouraged in order to select and publicise environmental friendly companies
Chongqing City	2004	A rating system of corporate environmental performance is being trialed and pilot projects are ongoing in heavy polluting industries

Xinjiang Prov.	2004	Provision of pollution emission reporting for the restaurant and entertainment industry
Hebei Prov.	2004	Public environmental disclosure system, including environmental governance information and important environmental accidents
Baotou City	2004	Solid waste reporting system, statistics and lists of enterprises creating solid waste in the city
Ningbo City	2004	Rating system for corporate environmental performance with pilot projects is ongoing. Results of ratings will be disclosed through the media
Shenzhen City	2004	Designated polluting companies required to disclose environmental information to the public and a rating system for corporate environmental performance
Hua County	2004	Rating system for corporate environmental performance
Anhui Prov.	2004	Rating system for corporate environmental performance
Sichuan Prov.	2004	431 targeted companies required to disclose environmental information monthly
Hebei Prov.	2004	The “Top 10 Polluting Corporate Cases” were published in news media
Shenyang City	2004	Encouraging corporate environmental reporting
Jiangsu Prov.	2003	Rating system for corporate environmental performance has been extended from 100 enterprises to 3074 enterprises
Tongling City	2003	Pilot project on corporate environmental disclosure ratings
Shandong Prov.	2003	Rating system for corporate environmental performance with the results of ratings published in the media
Wenzhou City	2002	Promoting corporate environmental credit management
Beijing City	2002	Information system of corporate environmental credit management, enterprises with bad records will be audited periodically

Hangzhou City	2002	Proposed rating system for corporate environmental performance
Harbin City	2002	Selection of the best and worst environmentally friendly companies along with public disclosure
Hebi City	2002	Corporate environmental credit management and auditing
Dongyang City	2002	Rating system for corporate environmental performance, enterprises with good environmental performance will be awarded Star(s) and publicised
Zhumadian City	2001	Issuing formal warnings to polluting companies

Source: SEPA, Environmental Information, Issue 138 ~ Issue 242

Measures above show that public disclosure and rating systems by local environmental protection bureaus have been widely used over the past two years. Positive experiences have also been learned from “China’s Green Watch Program” in Zhenjiang City of Jiangsu Province and Hohhot City of Inner Mongolia, jointly initiated by the World Bank’s InfoDev Program and SEPA China in 1998.¹² Here, a rating system divides industrial firms’ environmental performance into five categorical ratings, with two (black, red) denoting inferior performance; one (yellow) denoting compliance with national regulations but failure to comply with stricter local requirements; and two ratings (blue, green) denoting superior performance. Because it recognizes three performance levels for firms that comply with national regulations, the system provides incentives for continuous improvement. Even for non-compliant firms, the system rewards efforts to improve by recognizing two levels of performance. (Table 2, See Annex 5 for detailed Rating Determination)

¹² Wang Hua, Bi Jinnan and Wheeler David, etc., Public rating of industry’s environmental performance: China’s Green Watch Program, Development Research Group of World Bank, Chinese Research Academy of Environmental Sciences and School of the Environment of Nanjing University. pp7~9.

Table 2 Zhenjiang's 5-Color Rating Scheme for Polluters

Compliance Status	Level	Performance Criteria
Non compliance	Black	Greatly exceeds pollutant emissions standards set by SEPA and causes serious damage.
	Red	Efforts don't meet pollutant emissions standards set by SEPA, or have a record of serious pollution incidents.
Warning	Yellow	Meets pollutant emissions standards set by SEPA, but fails to meet local Environmental Protection Bureau standards.
Compliance	Blue	Exceeds all emissions standards set by SEPA and the local Environmental Protection Bureau; demonstrates superior environmental management.
	Green	Meets all requirements for Blue, plus satisfaction of ISO 14000 environmental standards; extensive use of clean technology.

Source: Public rating of industry's environmental performance: China's Green Watch Program

The program's color-coded ratings are generated by detailed auditing of environmental performance. The ratings system draws on four principle sources of information: reports from industrial firms' polluting emissions; inspection reports on their environmental management; records of public complaints, regulatory actions and penalties; and surveys that record characteristics of the firms that are relevant for rating environmental performance.

Since 2000, Zhenjiang City and Hohhot City have publicly implemented the rating system after two years of pilot projects. The Chinese government has been keen to

learn lessons from this program and is now expanding it to other areas. In the document “National Planning of Pollution Prevention and Control 2003-2005”, SEPA states that it wishes to build up an incentive mechanism for industrial pollution prevention and control. Measures mentioned in this document include: selection of national environmental friendly companies; rating systems based on the pilot project in Jiangsu Province; and environmental inspection for listed companies. Therefore, these measures are likely to become increasingly popular at the local level.

Some examples of Regulation and Measures by Local Governments

1. Chongqing City

Chongqing City implemented a pilot project for a corporate environmental performance rating system in 2004. Key measures of the project include: building corporate environmental performance evaluating regulations; developing a database and network for corporate environmental performance; building an indicator system for corporate environmental performance; ranking the corporate environmental performance by five-degree system, (very good, good, ok, bad, very bad) with respective notations of green, blue, yellow, red and black. The pilot project covered most of the polluting companies.

2. Anhui Province

Anhui Province strengthened corporate environmental disclosure in 2004. Local environmental protection bureaus were required to regularly release a list of companies whose pollutants exceeded set levels. The targeted companies had to disclose corporate environmental information on the websites of provincial or municipal environmental protection bureaus. Compulsory information included: corporate environmental policy; total amounts of emissions; corporate pollution control; compliance with environmental laws and regulations; and corporate

environmental management measures. Voluntary information included: enterprise resource consumption; environmental concerns identified by the company; environmental protection goals in the coming year; community engagement with environmental protection issues; and environmental awards. Companies are also encouraged to produce a corporate environmental report and release it on corporate or government websites.

3. Shangdong Environmental Protection Bureau

Shangdong Environmental Protection Bureau launched its Corporate Environmental Credit Initiative on July 1st 2003. This initiative covered all polluting companies in Shangdong Province and evaluated the companies with different environmental credits. Credit A was given to companies with the best environmental performance; Credit B was given to companies with good environmental performance; Credit C was given to companies with normal environmental performance; and Credit D was given to companies with poor environmental performance. Credits are authorized by municipal environmental protection bureaus in February every year and then submitted to the Shangdong Environmental Protection Bureau for approval. Results are published in the magazine of the Shangdong Environmental Protection Bureau and on its website.

Companies that get two Credit As consecutively are awarded Credit AA; Companies that get 3 Credit As consecutively will be awarded Credit AAA etc. Companies with a Credit AAAA are given the title of Environmental Friendly Enterprise of Shangdong Province. Preference is given to Credit A companies when awarding contracts whilst stricter environmental monitoring measures will be implemented on companies with Credit D.

2.7. Standards and certificates

A number of voluntary standards and certificates in China exist and are aimed at enhancing the competitiveness of products. To apply for such certificates, enterprises have to report to the Certificate Committee (issuer) the details of the products and their impacts on the environment. Some of the environment-related standards and certificates are listed below (Table 3) along with the issuing agencies. ISO14001, China Environmental Labeling and SA8000 are the most popular.

Table 3 Some Environment-Related Certificates in China

<i>Green Food</i>	
China Center for Green Food Development	
<i>Energy Conservation Product</i>	
China Certification Center for Energy Conservation Product	
<i>Water Conservation Product</i>	
China Certification Center for Energy Conservation Product	
<i>Green Star</i>	
China Association for the Environmental Protection Industry	
<i>China Environmental Labeling</i>	
China Certification Committee for Environmental Labeling	
<i>Organic Food</i>	
China Organic Food Certification Center	
<i>Healthy Friendly Building Materials</i>	
National Research Center of Testing Technique for Building	
<i>Fireproofing and Environmental Friendly Building Materials</i>	
National Center for Quality Supervision and Testing of Fire	
<i>Green Choice</i>	
China Society for Commodity Studies	
<i>ISO14000</i>	
International Organization for Standardization	

3. Corporate Reporting and Disclosure: Results of Surveys

Given the laws and regulations outlined above, corporate reporting and disclosure is increasingly necessary particularly in response to local and national government mandates. The response by business in China has been interesting and the results of three surveys provide us with a number of interesting insights. They are: A questionnaire survey in 2001 covering 124 companies including 10 industrial enterprises, 81 banks, 5 securities firm and mutual funds, and 28 accounting firms. (Hereafter referred to as Survey 2001¹³); Research in 2003 focused on the annual reports of 1195 listed companies in Chinese stock markets and analyzed the current situation of listed corporate environmental disclosure. (Hereafter referred to as Survey 2003¹⁴); A questionnaire survey by the Japanese Institute in 2004 studying corporate environmental management in China from 61 responding listed companies. (Hereafter referred to as Survey 2004¹⁵, also see details of the responded companies and industry in Annex 6). The main results of these surveys are compiled below.

3.1. Corporate reporting and disclosure in general

In general, currently around one third of listed companies in China publish some sort of corporate environmental information. The overall percentage of disclosing companies was 34% in 2002 and 37% in 2003. The number is therefore increasing and it seems that heavy polluting industries such as mining, paper making and printing, and fossil fuel users show the greatest interest in environmental reporting and disclosure. On the other hand, industries like finance and IT are not so

¹³ Li Jianfa and Xiao Hua, Current situation, demand and future of corporate environmental reporting in China, *Accounting Study*, 2002(4), pp 42~50.

¹⁴ Xiao Shufang and Hu Wei, the environmental information released of Chinese on-market companies, *Journal of Beijing Institute of Technology (Social Sciences Edition)*, Vol.6, No.5, 2004.10, pp69~72

¹⁵ Yasuhiro Kanda, Corporate Sustainability Management in China, Korea and Japan: A Questionnaire Survey Report, Kaisai Research Center of the Institute for Global Environmental Strategies, Discussion Paper No.7E, 2004.3

enthusiastic.

Table 4 provides information about environmental disclosure in different industries. This confirms that those industries traditionally seen as causing the most environmental damage are more likely to disclose than others. In addition table 5 shows that public disclosure is not insignificant although the production of a formal environmental report and environmental accounting are still done only by a minority of companies.

Table 4 Survey 2003: Corporate Environment Disclosure in Different Industries

Industries	Total Companies	Disclosed Com.		Percent(%)	
		2003	2002	2003	2002
Mining	16	14	14	87.50	87.50
Paper making and printing	22	17	16	77.27	72.73
Power, steam and water supply	48	35	25	72.92	52.08
Fossil fuel and plastic	132	86	82	65.15	62.12
Metal and non-metal	115	70	62	60.87	53.91
Bio medicine	74	40	37	54.05	50.00
Food and beverage	52	28	26	53.85	50.00
Wood and furniture	2	1	2	50.00	100.00
Agriculture, fishery, forestry	29	14	13	48.28	44.83
Textile	54	26	24	48.15	44.44
Electronics	33	9	13	27.27	39.39
Conglomerate	82	21	19	25.61	23.17
Other manufacturing	20	5	4	25.00	20.00
Heavy industry	207	43	43	20.77	20.77
Construction	20	4	3	20.00	15.00
Service	45	9	10	20.00	22.22
Transport	49	5	7	10.20	14.29
Real estate	41	4	3	9.76	7.32
Sales	95	9	8	9.47	8.42
Media and culture	12	1	0	8.33	0.00
Information Technology	38	1	0	2.63	0.00
Finance	9	0	0	0.00	0.00
Total	1195	442	411	36.99	34.39

Table 5 Survey 2004: Corporate Environmental Reporting and Disclosure

(a) Does your company disclose information on your environmental activities?

Responses	Valid Response	Percent
A. Yes, to the public	16	26.2
B. Yes, to some sectors	38	62.3
C. No	5	8.2
D. Other	2	3.3
No answer	0	0
Number of samples	61	100.0

(b) Does your company publish an environmental report or sustainability report?

Responses	Publish or Not?		Publish In Annual		Publish On Website	
	Response	Percent	Response	Percent	Response	Percent
A. Yes	10	16.4	23	37.7	27	44.3
B. Planning	6	9.8	14	23.0	16	26.2
C. No	41	67.2	20	32.8	14	23.0
D. Other	3	4.9	1	1.6	0	0.0
No answer	1	1.6	3	4.9	4	6.6
Number of samples	61	100.0	61	100.0	61	100.0

(c) Has your company introduced an environmental accounting system?

Responses	Response	Percent
A. Yes	5	8.2
B. In consideration	16	26.2
C. Has not introduced yet	29	47.5
D. Does not know	7	11.5
E. Not interested	0	0.0
F. Other	2	3.3
No answer	2	3.3

Number of samples	61	100.0
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3.2. The content of reporting and disclosure

Since there is no standard on corporate environmental reporting and disclosure in China yet, the content of environmental reporting and disclosure is diverse. Generally, these contents can be divided into three kinds. The first is the statement of corporate environmental policy and the impacts on the business of government environmental policy. The second is associated with the costs and benefits of environmental aspects (see Table 7), which can be denoted in monetary values. The third is the introduction of principle pollutants and the solutions to deal with them.

Table 6 Survey 2001: Corporate Environmental Reporting Content

Items	Average	SD
Environmental Policy	4.2703	0.6317
Environmental Impacts	4.2768	0.6034
Information about solid wastes, packages, emissions and recycle	4.0270	0.7563
Environment-related financial information	4.0364	0.5573
Achievement on environment	4.0734	0.5726
Environmental auditing	4.0187	0.7521

*Result above is the response to the question: Which one do you think should be included in corporate environmental reporting?

**The score of Average: 5=totally agree; 4=agree; 3=uncertain; 2=disagree; 1=totally disagree.

***SD means Standard Deviation.

Table 7 Survey 2003: Disclosed Contents and Forms

Items	2003				2002			
	A	B	A&B	Total	A	B	A&B	Total
Investment on environment	151		33	184	107		52	159
Government finance and tax reduction due to environmental reasons	67	4	54	125	62	5	34	101
Pollutant emission fees	120			120	96			96
Taxation and compensation fees of resources	88			88	80			80
Costs of certificates for ISO etc.		44		44		41		41
Cost of ecological improvement	40			40	37			37
Impacts by gov. environmental policy		37		37		37		37
Others	13	15	3	31	5	21	9	35
Other environment income and expenses	15			15	17		1	18
Loan raised for environment	6		1	7	5		6	11
Legal fare, fine, compensation and award	1		3	4	4	1	2	7

*A means the item disclosed is counted in form of money; B means the item disclosed is not counted in form of money; A&B means the item disclosed is counted in mixed forms.

Table 8 Survey 2004: Environmental Information Disclosed

Information	Response	Percent
A. Environmental Policy	37	68.5
B. CO ₂	12	22.2
C. SO _x , NO _x , PM etc.	22	40.7
D. Wastes	30	55.6
E. Chemicals	11	20.4
F. Targets	49	90.7
G. Action plan	42	77.8

H. Status of activities	43	79.6
I. Environmental accounting	6	11.1
J. Environmental auditing	7	13.0
K. Accidents or complaints	10	18.5
L. Other	1	1.9
No answer	0	0.0
Number of Samples	54	--

Box 7. Examples of Environmental Information in Annual Reports

Example 1. Annual report 2003 of Guangdong Electric Power Development Co. Ltd.

The Company respects the interests of banks, creditors, employees, consumers, vendors, the community ... cooperating with interested parties actively for the healthy and continuous development of the Company. The Company is concerned about environment protection and its social obligations.

Example 2. Annual report 2003 of China International Marine Containers (Group) Co. Ltd.

In the research and application of the environmental container wooden floor project, the Company has made a breakthrough; Shanghai CIMC designed and produced the world's first environmental-protecting reefer adopting environmental-protecting vesicant in July 2003, indicating the Group has made significant progress in the research field of environmental-protecting reefers. The Company has also made preliminary progress in the jointly developed project of the security smart container.

Example 3. Annual report 2003 of China Petroleum & Chemical Corporation

Section 6 of the report is about health, safety and environment (HSE).

- Improve the HSE Management. Since 2001, the company has invited HSE consulting firms to help the founding of HSE management system. Till the end of 2003, such system has been built in 49 subsidiary companies.

- Implement precaution policy and evaluate the risks of new project. The company has finished the safety assessment of some new projects and implemented regular monitoring and assessment in important projects and facilities.

- Promote cleaner production. The company promotes cleaner production in all subsidiary companies. Meanwhile, the company also strengthens the water saving management and reduces

pollutant emission.

-Provide clean fuel to the society. Since Jul.1, 2003, the company has applied the new gasoline standard. The content of sulfur has been reduced greatly.

Source: Annual report 2003 respectively, from <http://www.cs.com.cn>

3.3. Ways to report and disclose

There are many ways to report and disclose corporate environmental information (see tables 9 to 11). Some companies have used the annual financial report, others use a special report, and some have simply used local press and other media. Even where information is enclosed in the annual report, there is little consistency, and information can appear in different parts of that report. We are unlikely to see better consistency in China without some sort of uniform guideline for corporate environmental reporting and disclosure.

Table 9 Survey 2001: Ways to Report and Disclose Environmental Information

	Percent
Yearly Accounting Report	20
Addition of Accounting report	38
Independent environment report	57
Board report	40
Internal document	8
Discussion and analyses by managers	18
Prospectus of IPO	42

Table 10 Survey 2003: Ways of Corporate Environmental Disclosure

	2003	2002
Board Report	108	121

Accounting Report	0	0
Addition of accounting report	375	323
Independent issues (EHS)	1	1
Important issues	6	12
Others	8	2

*EHS means Environment, Health and Safety

Table 11 Survey 2004: How Does Your Company Disclose Environmental Information?

	Response	Percent
Environmental report	8	14.8
Environmental brochure	16	29.6
Corporate brochure	36	66.7
Financial statement	15	27.8
Website	25	46.3
Receive tours to factory	19	35.2
Meeting with residents	5	9.3
Television or radio	11	20.4
Newspaper or magazine	14	25.9
Seminars or symposium	10	18.5
Other	3	5.6
No answer	0	0.0
Number of Samples	54	--

3.4. Purposes of reporting and disclosure

Regarding the drivers for and purposes of reporting and disclosure, Table 12 provides some clear indications that most activity is in response to government mandates. As discussed in Section 2 *Laws and Regulations* in this report, enterprises are usually

required to register or report on pollution emissions to the government or face fines and other punishments. However, it is also important to notice that a new trend of market pressures (including investors) and third party pressures (including NGOs) are influencing corporate environmental reporting and disclosure as well.

Table 12 Survey 2001: Reasons for Corporate Environmental Reporting

Reasons	Percent
In response to government mandates	70
In response to market pressures	44
In response to public or NGOs' pressures	21
In response to investors' pressures	19
Accordant with parent company outside China	27
Good reputation	55

Table 13 Survey 2004: What are the purposes?

	Response	Percent
Social responsibility	37	68.5
Stakeholder Communication	32	59.3
Advertisement	9	16.7
Education of employees	38	70.4
Compliance	0	0.0
Other	1	1.9
No answer	0	0.0
Number of Samples	54	--

3.5. Users of reporting and disclosure

Since the reason for corporate environmental reporting is mainly in response to government mandates, it is not strange that government agencies are the key users of

the information, as indicated in Table 14. Financial institutions, investors and financial analysts are also on the list of the users, which shows the interest of financial sectors in environmental reporting and disclosure to control the environmental risks or explore business opportunities.

Table 14 Survey 2001: Users of Corporate Environmental Reporting and Disclosure

Users	Percent
Government agencies	52
Financial institutions	23
Investors	29
Employees	13
Financial analysts	9
Customers	18
Mass media	15
Public (including NGOs)	9
Others	35

4. Features of Corporate Environmental Reporting and Disclosure

4.1. Corporate disclosure

Based on the surveys above, the conclusion must be that corporate environmental reporting and disclosure have not yet become mainstream in China. It should be noted that the survey samples providing data in the previous section come from samples that are biased due to a low response rate in most cases. They almost certainly overstate the actual situation. To date, we would have to conclude that companies in China certainly pay less attention to corporate environmental reporting and disclosure compared with some of their Western counterparts.

This is predictable given that the context of corporate disclosure and other issues of corporate governance of listed companies are in their infancy in China. A recent research conducted by Nankai University in 2003 indicates that the average score of their information disclosure index was 58.4 (Maximum 100, see Table 15). Many companies score around 50 to 70. But as corporate governance requirements are increased in China we should expect a greater emphasis on environmental reporting and disclosure.

Table 15 Information Disclosure Index of CCGINK

Score	(Maximum	<50	50-60	60-70	70-80	80-90	90-100
100)							
Companies (Percent)		25.24	16.97	35.88	13.64	6.44	1.83

* CCGINK: China Corporate Governance Index of Nan Kai (University)

Source: Information Disclosure Evaluation Report, CCGINK, Center for Corporate Governance, Nankai University

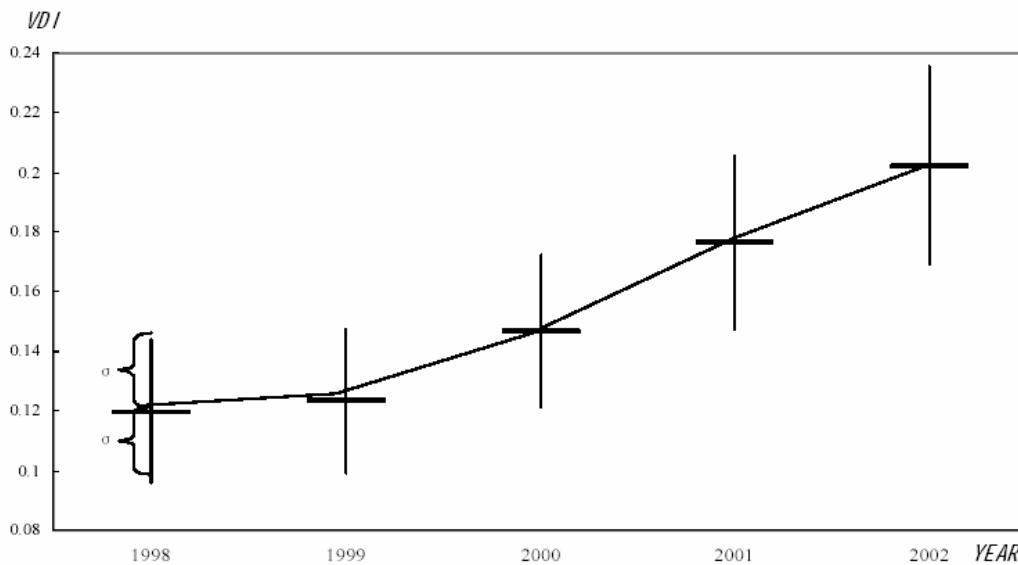
Most companies only report to the government and submit environmental information

when they are forced to do so (e.g. through EIA reports). It seems that companies still regard this information as far less important than, say, information provided for investors. Even though we have seen a greater need for disclosure in EIA reports, EIA procedures are not always followed. To promote the development of the local economy some governments approve projects without EIA reports or allow companies to submit EIA information after starting projects. Nevertheless SEPA is insisting on stricter procedures and in December 2004 announced the punishment of 68 accredited EIA organizations, 8 of which were suspended.

On the other hand we have seen great progress with respect to environmental reporting and disclosure since 1992 when it was firstly introduced to China. Table 4 shows that some sort of disclosure is actually quite high in some industries, although this less frequently translates into formal environmental reporting. More companies are including environmental information into annual reports. Increasing awareness about corporate reputation and growing pressures from governments and the public appear to be the main drivers of increased disclosures. A recent survey entitled “2004 Corporate Reputation Watch (China)” by Hill & Knowlton and the Economic Observer shows that 89% of Chinese CEOs agree that corporate reputation is very important, while 10% agree that it is somewhat important. A relatively high 57% said that they sponsored environmental activities¹⁶. Other research on a Voluntary Disclosure Index in 2003 illustrated rapidly growing voluntary disclosure from 1998 to 2002. (Figure 2)

¹⁶ 2004 Corporate Reputation Watch (China) summary findings, sponsored by Hill&Knowlton and the Economic Observer, 16 June 2004

Figure 2 China Voluntary Disclosure Index (VDI) 1998-2002



Source: Zhang Zongxin, etc., Study of the Validity of Voluntary Disclosure of Listed Companies, 6th Research Award, Shenzhen Stock Exchange, 2003

4.2. Pressure oriented disclosure

Corporate environmental reporting and disclosure in China is still at a stage of being pressure oriented. In other words, companies are often reluctant to release environmental information if they are not asked to do so and nobody puts much pressure on them. Companies usually want to disclose as little information as possible, partly because they see this process as costly.

In general, pressure for disclosure comes from different stakeholders. As noted before the most important stakeholder seems to be the government. As indicated in Table 12, 70% of the reasons for reporting and disclosure are linked to government pressures. In China, although there are not so many specific regulations aimed at improving corporate environmental reporting and disclosure, related measures are included in many regulations as listed in Part 2 “Laws and Regulations”. Companies, particularly those producing heavy pollutants, are required to report to (or register with) the government exact details of the pollutants and their measures to prevent and deal with

pollution. The State Environmental Protection Administration (SEPA) and its local agencies are the bodies with most requirements for corporate environmental reporting and disclosure. Some other departments are gradually becoming involved as well, however. For example, the National Development and Reform Commission (NDRC) asks companies to report information regarding the energy consumption of certain products. The China Securities Regulatory Commission (CSRC) is another department now beginning to require listed companies to undertake corporate environmental reporting and disclosure. According to the regulation on information disclosure of listed companies, environmental information (such as an EIA report) is necessary when companies are applying for Initial Public Offerings (IPO).

Standards and Certificates Issuers are another stakeholder group that is exerting environmental pressure on companies. Among them, some are required and encouraged by government sectors. For example, China Energy Labeling is necessary for the products made by companies that are in the list of heavy polluting companies issued by the NDRC. Companies have to provide necessary environmental information and periodically report on standards and certificates issuers so as to apply for and keep such standards and certificates. “Recycled ODS Labeling” is another example. This Labeling is compulsorily pasted on any ozone depleting products exported to other countries. It is issued and managed jointly by SEPA, the Ministry of Foreign Trade and Economic Cooperation (now the Ministry of Commerce) and the Customs Department of China.

Other standards and certificates, such as China Environment Labeling, ISO14001, Green Food Labeling, and SA8000 are voluntarily applied. Most of them are issued and managed by the government or by government-organized NGOs in China except SA8000, which is not formally recognised by the Chinese government (that is, the Certification and Accreditation Administration of China [CNCA] has not added SA8000 to its certification list). Companies disclosing information and applying these certificates want to enhance the competitiveness of their products. Driving forces are

coming from markets at home and abroad. In the Chinese market, some consumers prefer so-called green and eco-labeled products. In overseas markets, especially in European countries, it is normal that market access is only given to environmentally responsible products. This makes the related standards and certificates popular in mainland China in the manufacturing field.

Although investors, customers and NGOs can exert pressure on companies, their voices are still relatively weak in China. However, their power is growing. For example, joint venture partners and investors from western countries are increasingly asking for more details about environment issues. One example is International Financial Corporation (IFC)'s shareholding in the Bank of Shanghai. Since then, all projects the bank loaned money to have to present environmental information and risk analyses in advance.

Box 8. Cooperation between the Bank of Shanghai and IFC

The Bank of Shanghai and the International Finance Corporation (IFC) signed a cooperation agreement on Sep.9th 1999, stating that IFC had invested and held 5% of the total share of the Bank of Shanghai. After this joint venture, the Bank of Shanghai improved its governance in many aspects, one of which was environmental performance.

In the cooperation agreement, IFC required the Bank of Shanghai to create an environmental management system so as to assure all behaviour were compliant with laws and regulations of the environment, health and safety in China. The Bank of Shanghai also sent some employees to be trained by the IFC to learn how to improve environmental performance.

The Bank of Shanghai subsequently added some more environment-related clauses into the contract of loans; the bank implements environmental inspections on the enterprises who are applying for loans; and the environmental performance of the clients has become one of the key factors in the risk management of loans.

Source: The Investigation Report about IFC's Entry into the Bank of Shanghai, China Finance Yearbook 2002.

4.3. Specified Users

Since environmental reporting and disclosure so far is mainly in response to the pressures of certain stakeholders and pressure is higher in some sectors, it could not be regarded as sector-specific disclosure. This mixture of stakeholders and sectors ends up defining specific users of corporate environmental reporting and disclosure. Survey 2004 by the Japanese institute indicates that within the responding questionnaires, only 26.2% of companies say that they disclose general information on their environmental activities to the public at large. However, 62.3% of companies say they disclose information on certain sectoral activities.

Survey 2001 shows that 52% of corporate reporting and disclosure is used by government agencies (see Table 14), among whom, as noted previously, SEPA is the most important one. SEPA usually collects information through mandates. Companies have to register with SEPA if their business is related to the environment or will be harmful to the environment. Companies are also required to report the details of their emissions. Costs associated with the upgrading of pollutant treatment facilities, costs of arranging environment facilities in new projects and costs of emission fees are the most common areas of corporate environmental reporting and disclosure.

Such information could be important and valuable for governments to grasp the pollutant emission and control situation, and punish those with poor environmental performance and for exceeding emissions standards. Unfortunately, since such information disclosed to government agencies is held internally, the media and general public do not have the opportunity to access that information easily. As a result, the value of the information is constrained to some extent. However, there are certainly trends, noted above, associated with local governments providing information on the activities of companies to the public via local media outlets. In many provinces and cities we are now seeing “Black Lists” published in newspapers, for example. Some of these are listed below.

Table 16 Some Black Lists Produced in 2004

Place	Year	Black List
Taiyuan City	Jul. 2004	18 polluting companies breaking the law
Beijing City	Aug. 2004	14 polluting companies breaking the law
Yangzhou City	Aug. 2004	40 polluting companies exceeding emissions
Jiangsu Prov.	Sep. 2004	41 polluting companies exceeding emissions
Beijing City	Nov. 2004	13 construction workforces with poor environmental performance
Guangzhou City	Dec. 2004	47 polluting companies exceeding emissions
Sichuan Prov.	Dec. 2004	32 polluting companies exceeding emissions

4.4. Diversified Formats

Not surprisingly, in China, corporate environmental reporting and disclosure is not well regulated in content and format. Some companies reveal information in annual reports; some reveal information on websites; others in corporate brochures (see Table 5b and Table 11). Even within those contained in annual reports, disclosure can be in the form of a Board report, accounting based reporting, an addendum to accounts or a more independent report (see Table 10). No uniform format of reporting and disclosure is yet provided for Chinese corporations (although they are free to follow guidelines such as those provided in the Global Reporting Initiative).

Regarding the quantification of environmental impacts some information is provided in financial terms, such as investment in environmental technology, cost of improvement measures, and taxation related expenditures. Other information is only given in the form of simple descriptions such as the impact of government environmental policies and costs of ISO14001 certificates (see Table 7).

In terms of information provided in monetary terms, no clear rule of corporate

accounting is provided. It is very difficult for companies to decide where environment-related costs and benefits should be listed. Consequently, some companies disclose the information as an independent ledger of accounting; others will include it into other ledgers. Table 17 shows the current confusion on environmental accounting.

Table 17 Survey 2001: Selected Items in Corporate Accounting

(a)Environment-related Payout in Corporate Accounting

Payout	
Costs to upgrade pollutant treatment facilities	34%
Costs to arrange environment facilities to new projects	45%
Pollutant Emission Fees	71%
Costs to found specified environment divisions	11%
Costs to deal with environmental emergency	18%
Costs caused by breaking environmental laws and regulations	34%
Environment compensations for certain employees	21%
Costs caused by lawsuits and compensations	18%
Other environmental activities	16%
Others	0

(b)Environment-related Income in Corporate Accounting

Income	
Income from using recycled materials	24%
Income from tax reduction due to recycled materials usage	24%
Award for environmental performance given by government	28%
Pollution compensations given from other polluting companies	28%
Income from emission quota trading	3%
Special fund for pollutant control financed by government	30%
Benefits from the lower interest rate of debt for pollution control	18%

Donations for environmental protection	7%
Benefits from pollutant emission fees reduction due to cleaner production	14%
Others	3%

* Number in right columns is the percentage of company which counted the environment-related issue independently in corporate accounting report.

The diversified format for corporate reporting and disclosure increases the difficulty of using such information. Most non-professional users can often not understand the information released by companies. Furthermore, due to the lack of guidelines and rules on environmental reporting and disclosure, companies have a lot of freedom to choose what kind of information to disclose and frequently engage in a degree of ‘creative accounting’. As a result, companies often fail to provide the information which is critical to investors and only provide that of less importance instead.

4.5. Corporate sectors and ownership structures

Companies in different sectors, involved in different business activities and with different ownership structures experience different drivers and this influences their willingness to disclose environmental information. First, it is obvious that heavy polluting industries are more active in corporate environmental reporting and disclosure. They are the ones with the best return rates in several questionnaire surveys. For instance, in Survey 2004 by the Japanese institute, return rates from the heavy, textile and chemical industries are 21.3%, 14.8% and 13.1% respectively. Survey 2003 also indicates heavy polluting industries disclose more than others (see Table 18).

Table 18 Survey 2003: Corporate Environmental Disclosure in Different Industries

Industry	Number of Companies	Number of Disclosures		Percentage	
		2003	2002	2003	2002
Heavy Polluting Industry	513	316	286	61.60	55.75
Light Polluting Industry	682	126	125	18.48	18.33
Total	1195	442	411	36.99	34.39

Second, from the perspective of ownership structure, companies with foreign capital are more likely to be engaged in corporate environmental reporting and disclosure than others. In Survey 2001, 40% of responses come from joint venture companies; 27% of responses said that the reason for disclosure was to satisfy the parent company outside China. CNOOC and China Shell Petrochemicals Company Limited (CSPC) is one such example. By participating with the Shell Group CSPC has become more aware of environmental issues. It now not only includes environmental information in its corporate reports but also publishes independent sustainability reports. Moreover, we know that listed companies are more active than non-listed companies.

Box 9. Environmental Performance in CNOOC&SHELL

Introduction of the company

The Nanhai Petrochemicals project, the key project of CNOOC and Shell Petrochemicals Co Ltd (CSPC), is located in a suburban area in the Daya Bay area, Huizhou in South China's Guangdong Province, 80 kilometres northeast of Hong Kong. The total investment is US\$4.3 billion, which makes it the largest foreign-funded project in China. The project is a 50-50 joint venture between Royal Dutch/Shell and CNOOC Petrochemicals Investment Ltd.

Introduction of SD management

Sustainable development (SD) forms an integral part of the Project's

management systems and is taken into account in all business decisions. This ensures an economically-sound project, at the same time adopting responsible environmental standards and meeting its social obligations.

For major construction projects such as CSPC's, the SD commitment is underpinned by an Environmental and Social Impact Assessment (ESIA) that looks at all potential health, social, environmental and security impacts. It also seeks to identify solutions to mitigate impacts to acceptable levels as well as look for opportunities to bring benefits. The findings of the ESIA are included in an Environmental and Social Management Plan (ESMP) that becomes the Project's main tool to ensure responsible construction and operation.

CSPC's ESMP records a large number of actions that must be taken during construction, commissioning and operations and identifies action parties, who are held accountable. These actions are being written into the procedures by which the plant will be constructed and operated. Compliance is being monitored by both internal and external parties on an ongoing basis.

CSPC developed some environmental documents on its website, including:

- Sustainable Development Special Edition
- Sustainable Development Posters
- Resettlement External Monitoring Report (4th Issue)
- Resettlement External Monitoring Report (3rd Issue)
- Resettlement External Monitoring Report (2nd Issue)
- Resettlement External Monitoring Report (1st Issue)
- Monitoring Report on the Environmental and Social Management Plan
- Resettlement Action Plan

Source: <http://www.cnocshell.com>

5. Future developments in China

5.1. Laws and regulations

Corporate environmental reporting and disclosure will become more important in the near future in China for several reasons:

Sustainable development is seen as an important national strategy in China. The country is facing increasing environmental problems as well as greater pressure from international agencies. There is no doubt that more laws and regulations will be gradually enacted to regulate the environmental behaviour of enterprises in the near future.

New trends of government disclosure will also promote corporate environmental disclosure. Central government is requiring all government bureaucracies to be more transparent and disclose more information to public. In response to this requirement, daily air quality reports, monthly water quality of selected rivers reports, an annual report on the national environment and “Black Lists” of polluting companies have all been produced.

Corporate environmental disclosure will also increasingly be an area of interest for the China Securities Regulatory Commission (CSRC) In the last two years a number of scandals on the Chinese stock market and the foreign financial markets (such as China Aviation Oil in Singapore and China Life in New York) have made officials rethink the importance of corporate disclosure. The recent case of Sichuan Chemistry Co. Ltd. illustrates the importance of corporate environmental disclosure. This fertilizer plant discharged a large amount of polluted water into a local river which was the local drinking source in early 2004. The company was fined 1,000,000 Chinese Yuan.

In the near future, laws and regulations on corporate environmental reporting and

disclosure will become much stricter. More regulations are planned linked to existing requirements of “The Cleaner Production Promotion Act of the PRC”, “The Environmental Impact Assessment Act of the PRC” and “The Bulletin on Information Disclosure of Corporate Environmental Performance”. A black list and rating system developed from the World Bank “China’s Green Watch Program” will be enforced by SEPA and its local agencies.

Another important development will be the interaction between government agencies. In the past, SEPA and its local agencies released a lot of regulations, some of which were related to corporate environmental disclosure. It is difficult to implement these disclosure measures because they are scattered in different regulations and implemented through mandates¹⁷. Therefore SEPA will possibly compile some of the disclosure measures in a new document so as to make it easy to implement. In addition, SEPA will collaborate with other departments to regulate corporate environment disclosure. The China Securities Regulatory Commission (CSRC) will be an important partner in the coming years since recent documents issued by SEPA have been focusing on listed companies and copied to CSRC, such as the Regulations of Environmental Inspection on Companies Accessing to or Refinance on the Stock Market. Moreover, precise details of forms, formats and guidelines will be developed in the near future.

5.2. From pressure-orientation to market-orientation

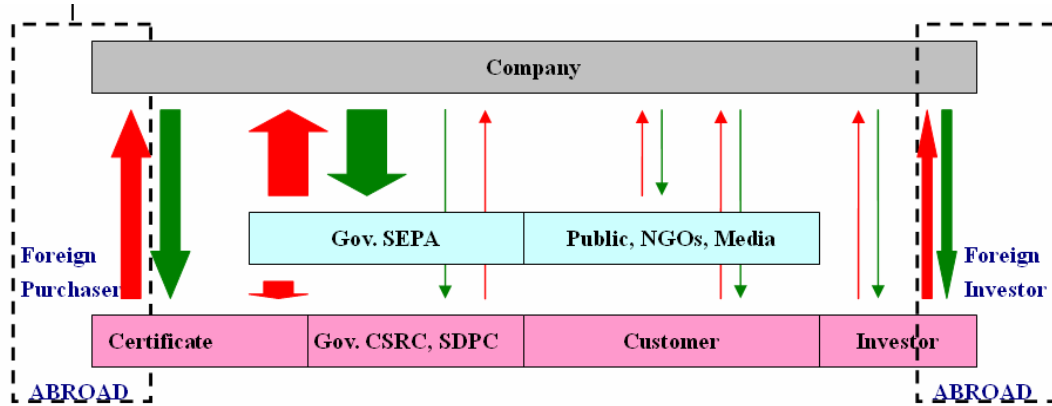
As the whole society and economic system is turning from a centralized economy to a market economy, so the government is trying to use economic measures to regulate

¹⁷ It is a complicated system to implement environment punishment on polluting companies in China. Environmental protection agencies have the responsibility to prevent and control pollutant emission, and they are authorized to issue punishment to lawbreaking companies. However, they do not have the right to compulsorily implement punishment measures, such as closing down the companies. If they want to shut down the companies, they have to ask legal departments for help. It usually costs some time because targeted companies possibly will not follow the decision of local court and will appeal a decision to a higher court. Though environmental protection agencies can fine polluting companies a great amount of money, it is relatively not much to big companies.

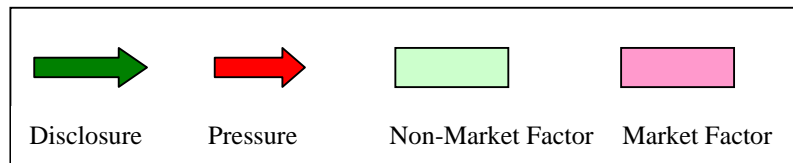
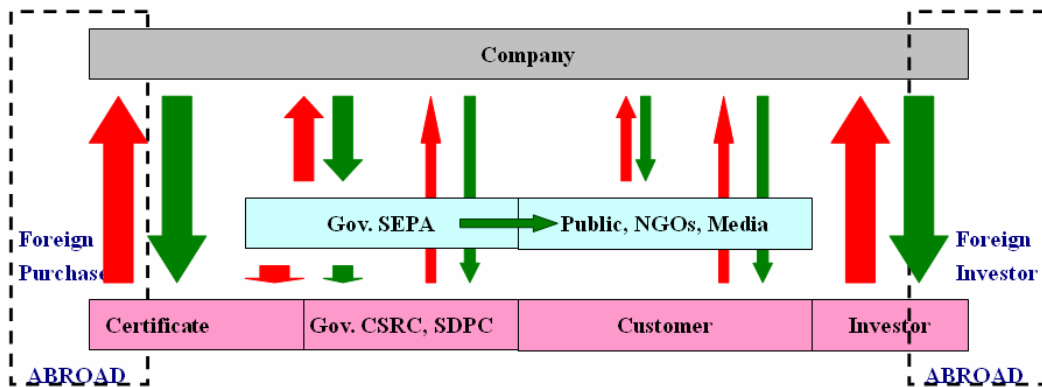
corporate behaviour. Corporate environmental reporting and disclosure is likely to evolve from the pressure-oriented stage to a more market-oriented stage. Figure 3 shows this trend.

Figure 3 the Transition from Pressure-Oriented to Market-Oriented

(a) Current stage of pressure-oriented



(b) Future stage of market-oriented



In the current stage of pressure-oriented responses, government agencies (especially the bureaucratic system existing under SEPA) are the greatest source of demand for and greatest users of corporate environment information. They can impose a great

deal of political pressure on companies and companies have to respond to their requests or face punishment. At the same time, some of the certificates required or desired by companies are directly managed and issued by government agencies. Currently, companies rarely disclose information to the public, NGOs or the media willingly. Certificate issuers and foreign investors get some information via the pressures they pass onto the companies from foreign purchasers and investors.

In future we are likely to see a shift towards more market-oriented pressures where certificate issuers and investors become much more important users of corporate environmental information. Some information will also be provided to both domestic and overseas customers where they demand it using their not inconsiderable purchasing power. Although government agencies will still be one of the important users of corporate environmental information SEPA is not the only one that will use it. The China Securities Regulatory Commission, the State Development and Planning Commission and other economic departments are all likely to want to have more environmental information from companies. Moreover, SEPA will increasingly want to share more information with the public, NGO sectors and the media, linking environmental performance with corporate reputation.

5.3. From mandatory disclosure to voluntary disclosure

In the current pressure-oriented stage, companies tend to respond to those that require environmental information and have the power to insist that it is forthcoming. They regard environmental disclosure as a kind of burden and generally want to disclose as little information as possible. However, market-orientation is going to lead companies to have to be responsible for providing information to a range of stakeholders including certificate issuers, government agencies, customers and investors. It will be more difficult for companies to focus only on specific users (e.g. government) and report on specific information, when they are faced with a much broader set of demands. We are likely, therefore, to see much more voluntary disclosure of general

environmental impacts thus responding to all users at one time. Some widely accepted reporting guidelines and standards are also likely to be used.

6. Conclusions and Recommendations

6.1. Conclusions

Corporate environmental reporting and disclosure is still at an initial stage in China and is in need of further development in parallel with the improvement of corporate governance and the increasing of public awareness on sustainable development.

Some features of corporate environmental reporting and disclosure can be drawn as following:

- Corporate environmental reporting and disclosure has not been a widely accepted concept in the Chinese market so far. Many companies treat it as an additional burden and try to release as little information as possible. Foreign-ventured companies have better understanding of environmental issues and are therefore more likely to disclose information.
- Most information released by companies is mandated by government and environmental agencies for the purpose of pollutant prevention and control. Hence information is not designed for public disclosure and is often very sector-specific. The government uses the information by itself and does not tend to share this with the public (although there are signs that this is changing), thus constraining the utilization of the information. Heavy polluting industries are more active in response to the government.
- There is inadequate research, training and guidance on corporate

environmental reporting and disclosure. Guidelines and rules are needed to provide help to companies in disclosing information in annual reports or other documents. Environmental information that is disclosed is not in a uniform format yet.

- There is evidence to show that environmental reporting and disclosure will become more and more important in the near future in China. Demands for corporate environmental information are coming from various sectors promoting the development of voluntary disclosure. Meanwhile, laws, regulations and guidelines on corporate environmental reporting and disclosure will be developed in response to this trend.

- The media is increasingly being used to “Black List” some companies and to reward others. Public shame is being used as one method of getting companies to improve their environmental performance and link that performance to company reputation.

6.2. Recommendations for companies

Considering the growing importance of sustainable development in China, companies need to pay more attention to both their environmental performance and their social responsibility. The effectiveness of the environmental protection bureaucracy system in China is improving all the time and increasing the pressure on businesses to act in a more environmentally sensitive way. The use of systematic measures and economic measures, in collaboration of other concerned government agencies, are being used to regulate corporate environmental behaviour. The active role of mass media and increasing public environmental awareness is creating more opportunities for good environmental reporting and disclosure linked to the management of company reputation. In an age of globalization, investors, analysts and customers all over the world transfer pressures to companies in China through economic interaction. China

is following the global trend in many aspects and will definitely keep up with the development of corporate environmental reporting and disclosure shortly. Therefore, it is important for companies to learn how to respond to this trend.

Different kinds of companies should have different strategies:

- For heavy polluting companies, the best way to deal with environmental problems is to upgrade their technology to an environmental friendly one, which will influence future competitiveness. Before that, they should at least meet with government-required standards and report all required details to the government. There is also now an opportunity to begin to prepare for voluntary, market-oriented environmental reporting and disclosure.
- For light polluting companies, corporate environmental reporting and disclosure could enhance their competitiveness in the marketplace. It is not difficult for them to use leading international reporting guidelines or standards.
- For companies involved in foreign investment or trade affairs (including companies listed on overseas stock exchanges), corporate environmental reporting and disclosure is increasingly required to communicate to foreign partners and investors.
- For companies based abroad and entering the Chinese market, they should be concerned about the environmental performance of the business partners located in China. Recognizing the future development of laws and regulations in China as well as public pressures at home and abroad, they had better partner with those with better environmental performance and those applying corporate environmental reporting and disclosure.

6.3. A new business opportunity?

Business opportunities are likely to emerge along with the development of corporate environmental reporting and disclosure in China. As yet, there is still no widely accepted standard or guideline to inform companies how to do environmental disclosure, although guidelines such as those by Global Reporting Initiative¹⁸ could be valuable if it can be introduced widely into businesses in China in the near future. Guidelines on the accounting system and accounting for environmental costs are also necessary.

The recent development of ISO 14000 (see table 20) and SA8000¹⁹ in China indicates that many Chinese companies, particularly from manufacturing, want to apply for such certificates to promote their sales overseas. This creates a big market for third party certification. On the other hand, when corporate environmental reporting and disclosure become widely accepted in the stock market, detailed information included in financial indicators would become very important for investors.

Table 20 Number of ISO 14001 Certifications

Area	1997	1998	1999	2000	2001	2002
Mainland, China	22	94	222	510	1085	2803
Hong Kong, China	46	56	51	105	165	208
Macau, China	--	--	1	1	1	70
Chinese Taipei	183	203	216	421	999	1024

Source: The ISO survey of ISO9000 and ISO 14001 Certificates, ISO

Corporate environmental reporting and disclosure is very new to most Chinese businessmen and their employees. Training and consulting business opportunities will

¹⁸ The sustainability reporting guideline 2002 developed by GRI was translated into Chinese in 2004.

¹⁹ SA8000 certificate has become popular recently. As of Aug.26th 2002, there were 34 companies holding SA8000 certificates. In Feb. 2004, the number increased to 49. In Oct. 2004, the number reached 57.

arise when they realize the importance of applying environmental disclosure in their business. Companies who are looking for overseas IPO or overseas venture partners, or companies from heavy polluting industries would be potential clients.

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China Securities website, <http://www.cs.com.cn>

China Cleaner Production website, <http://www.chinacp.com>

Annex 1. Laws and regulations of environmental protection of China

Title of Law	Issued Date	Implemen ted Date
1. Laws for Environmental Protection		
The Constitution of the PRC	12/04/8 2	12/04/82
The Criminal Law of the PRC	12/97	
The Environmental Protection Act of the PRC	12/26/8 9	12/26/89
The Prevention and Control of Air Pollution Act of the PRC	08/29/9 5	08/29/95
The Prevention and Control of Water Pollution Act of the PRC		
The Prevention and Control of Solid Wastes Act of the PRC	10/30/9 5	10/30/95
The Prevention and Control of Noise Act of the PRC	10/29/9 6	03/01/97
The Ocean Environmental Protection Act of the PRC	08/23/8 2	03/01/83
The Forestry Act of the PRC	09/20/8 4	01/01/85
The Land Management Act of the PRC	12/29/8 8	01/01/85
The Grassland Act of the PRC	06/18/8 5	10/01/85
The Fishery Act of the PRC	01/20/8 6	07/01/86
The Mining Resources Act of the PRC	03/19/8	10/01/88

	6	
The Water Act of the PRC	01/21/8	03/01/89
	8	
The Wildlife Protection Act of the PRC	11/08/8	03/01/89
	8	
The Water and Soil Conservation Act of the PRC	06/29/9	06/29/91
	1	
The Coal Act of the PRC	08/29/9	12/01/96
	6	

2. Provisions for Environmental Protection

Provisional Measurement of Emission Fee Levying	02/05/8	07/01/82
	2	
Management Provision of Environmental Protection on Exploration and Development of Oceanic Oil of the PRC	12/29/8	12/29/83
	3	
Management Provision of Shipping Pollution Prevention of the PRC	12/29/8	12/29/83
	3	
Management Provision of Dumping in Ocean of the PRC	03/06/8	03/15/85
	5	
Management Provision of Natural Conservation Areas for Forest and Wide Animal of the PRC	07/06/8	07/06/85
	5	
Provisional Measurement of Environmental Management in Economy Opening Areas	03/15/8	03/15/86
	6	
Provisional Measurement of Energy Saving	01/12/8	04/01/86
	6	
Management Provision on Safety of Civil Facilities of the PRC	10/29/8	10/29/86
	6	
Management Provision on Safety of Chemical Dangerous Materials	02/17/8	02/17/87
	7	
Management Provision of Pollution Prevention of Ships	05/18/8	06/01/88

Dismantling of the PRC	8	
Provisional Measurement of Specialized Funds for	07/28/8	09/01/88
Pollution Disposal	8	
Provision of Land Re-Cultivation	10/21/8	01/01/89
	8	
Implementation Measurement on Water Pollution	07/12/8	09/01/89
Prevention of the PRC	9	
Provision of Radiation Protection	10/24/8	10/24/89
	9	
Provision of Environmental Protection of PLA	07/10/9	07/10/90
	0	
Management Provision of Preventing Land-based	06/25/9	08/01/90
Pollutants from Polluting Ocean of the PRC	0	
Management Provision of Preventing Coastal	06/25/9	08/01/90
Construction Projects from Polluting Ocean of the PRC	0	
Implementation Measurement of Air Pollution	05/24/9	07/01/91
Prevention of the PRC	1	
Provision of Natural Conservation Areas of the PRC	09/02/9	12/01/94
	4	

3. Regulations for Environmental Protection

Regulation on Industrial Pollution Prevention With	06/02/8	
Technology Development	3	
National Regulation on Environmental Supervision and	07/21/8	07/21/83
Management	3	
Measure of Environmental Protection in Nuclear Power	05/09/8	
Station Construction	4	
Measure of Financial Management and Accounting for	05/13/8	07/01/84
Exceeding Emission Fees	4	
Bulletin of the Regulation on Financing for	06/10/8	06/10/84

Environmental Protection	4	
Provisional Management of Energy Saving	01/12/8	04/01/86
	6	
Measure of Environmental Protection for Construction	03/26/8	03/26/86
	6	
Measure of Municipal Radiation Materials Management	07/16/8	07/16/87
	7	
Provisional Management of Environmental Pollution and	09/10/8	09/10/87
Accident Reporting	7	
Measure of Environmental Protection Management and	05/09/8	05/09/88
Supervision on Waste Water Treatment Facilities	8	
Regulations on Pollution Prevention of Paper Maker	12/20/8	01/01/89
	8	
Measure of Pollution Prevention of Conservation Areas	07/10/8	07/10/89
for Drinking Water	9	
Regulations of Environmental Management for	06/90	06/90
Construction Projects		
Measure of Pollutant Supervision and Management for	08/15/9	08/15/90
Auto Emission	0	
Measure of Radiation Environmental Management	09/22/9	09/22/90
	0	
Inspection and Management Regulation for Auto	02/22/9	02/22/91
Emission (Provisional)	1	
Measure of Inspection and Management for Industrial	02/22/9	02/22/91
Pollutants (Provisional)	1	
Regulation of Pollutant Register	07/03/9	10/01/92
	2	
Measure of Administrative Punishment for	07/07/9	07/07/92
Environmental Protection	2	

Regulation on Environmental Inspection Implementation	07/07/9	07/07/92
Symbol	2	
Regulation on Pollution Prevention of Gange	07/08/9	
	2	
Measure of Promoting Environmental Protection	10/11/9	
Technology of the Nation	3	
Measure of Environmental Inspection For Construction	12/22/9	12/22/94
Project	4	

*This English version above is for reference only. In the event of discrepancy, the Chinese version shall prevail. Source: <http://www.chinaenvironment.com>

Annex 2. Clauses about information disclosure in environmental laws

(Ordered by issued date)

- (a) The Constitution of the PRC [1982, revised in 2004].

The Constitution states that, “all rights in the PRC belong to the people. The people manage state affairs, economic and cultural affairs, and social affairs by various means in accordance with the law.”²⁰

- (b) The Ocean Environmental Protection Act of the PRC [1982, revised in 1999].

Article 43 states that enterprises running projects on the coast should submit Environmental Impact Assessment (EIA) reports to the government during the period of the feasibility study. Article 60 states that enterprises holding permits to dump waste into sea should keep detailed records of the waste and report to the governments afterward.

- (c) The Prevention and Control of Water Pollution Act of the PRC [1984, revised in 1996].

Article 14 states that enterprises should report to the government the details of the emission and treatment facilities. Enterprises with exceeding emissions should formulate plans to deal with such emissions and report to the local environmental protection bureaus. Enterprises that provide incorrect information will be punished and fined.

- (d) The Mining Resources Act of the PRC [1986, revised in 1996].

A registration system is established to manage the mining exploration. Mining enterprises can start their business only when their report or application is approved.

- (e) The Environmental Protection Act of the PRC [1989].

Enterprises that refuse the inspection of any level of government, or refuse to report to the government about the details of emissions, will be warned or fined.

- (f) The Prevention and Control of Air Pollution Act of the PRC [1995].

Article 12 states that enterprises who let out pollutants must report to the local

²⁰ Wang Hua, Bi Jinnan and Wheeler David, etc., Public rating of industry’s environmental performance: China’s Green Watch Program, Development Research Group of World Bank, Chinese Research Academy of Environmental Sciences and School of the Environment of Nanjing University. p5.

government the details of the emission and the facilities to deal with it. They should report again in case of any changes. Article 20 states that enterprises should inform the local environmental protection bureaus in the case of any environmental emergency.

- (g) The Prevention and Control of Solid Wastes Act of the PRC [1995].

Article 20 states that enterprises cannot close their waste treatment facility or leave it unused. In the case of any necessary change enterprises should send an application to the local environmental protection bureau for approval.

- (h) The Prevention and Control of Noise Act of the PRC [1996].

Article 15 states that enterprises that make noise should use facilities to deal with noise pollution as required. Companies should report to the government if they want to remove or suspend the facilities. Article 24 states that industrial companies producing noise pollution should report to the government about the details of the noise such as noise intensity and their solutions to prevent noise. Article 29 states that construction units should report to the government if the construction is located in the city and supposed to make noise. Article 42 states that commercial companies located in noise sensitive areas should report to the government about the details of the noise and their solutions to prevent noise. Article 49 states that enterprises providing incorrect information will be punished.

- (i) The Energy Saving Act of the PRC [1997].

Article 26 states that enterprises producing energy consuming products should indicate the energy efficiency on manuals and labels. Article 28 states that targeted energy consumption enterprises²¹ should regularly report their energy consumption reports including scale, efficiency and energy saving measures to the governments. Enterprises providing incorrect information will be punished.

- (j) The Environmental Impact Assessment Act of the PRC [2002].

This Act requires all projects should accept environmental impact assessment (EIA) and provide EIA report to the governments. Only after the environmental protection bureaus approve the reports, projects could be launched.

²¹ A list of products has been developed by special working group under State Council.

(k) The Cleaner Production Promotion Act of the PRC [2002].

Article 17 states that environmental protection bureaus can publish in mass media the name list of the polluting companies. Article 31 states that companies listed in Article 17 should publicly announce the details of their emission.

*This English version above is for reference only. In the event of discrepancy, the Chinese version shall prevail. Source: by the author

Annex 3. Bulletin on Information Disclosure of Corporate Environmental Performance

The State Environmental Protection Administration issued the “Bulletin on Information Disclosure of Corporate Environmental Performance” on November 5, 2003.

The Bulletin stipulates that non-compliant enterprises should disclose their corporate environmental performances to the public. According to the Bulletin, local environmental protection bureaus (EPBs) should release non-compliance corporate lists periodically to the public via local media (newspaper, television, etc.). Enterprises which have been put onto the list recently should disclose their performance for the first half of this year. Starting from 2004, listed enterprises should disclose their environmental performances of the previous year by March 31 every year. Non-listed enterprises can report their environmental performances on a voluntary basis.

Whenever the following situations occur, local EPBs should publicize relevant information on their websites or report to SEPA for information disclosure:

- During routine inspective monitoring, the occurrence that emissions/discharges of major pollutants beyond the limit of national or local emission/discharge standards is successively more than twice;
- During routine inspective monitoring, the occurrence that emissions/discharges exceed the allowable level prescribed in emission/discharge permit is successively more than twice;
- During on-site inspection, the occurrence of non-compliance is successively more than twice;
- Serious pollution damage occurred; and collective complaints received.

Environmental information required to be disclosed include: corporate environmental policy, emission/discharge level, situation of pollution abatement, state of environmental compliance, payment for pollution levy, etc. Information provided should be accurate and relevant data should be available at least for 3 years

successively. The provision of other information, such as resource consumption and environmental targets for the next year, is encouraged but on a voluntary basis.

Source: China Youth Newspaper, 11/5/2003

Annex 4. Regulations of Environmental Inspection on Companies Accessing to or Refinance in Stock Market

This regulation was released by the State Environmental Protection Administration on Jun. 16th, 2003 for enterprises from heavy polluting industries who want access to the stock market and for listed companies who want to refinance on the stock market to invest in heavy polluting industries. Heavy polluting industries here include: metallurgy, chemistry, oil, coal, thermal electricity, construction, paper making, brewage, pharmacy, ferment, textile, leather and mining.

Enterprises from these industries who want to access to the stock market are required:

- To meet the emission standards;
- To apply for emission license;
- To reach a cutting edge level of reducing emission;
- To disposal all the wastes safely;
- To apply EIA to new projects;
- To run the environmental facilities stably;
- To pay the pollutant fees on time;
- To avoid the use of prohibited materials;

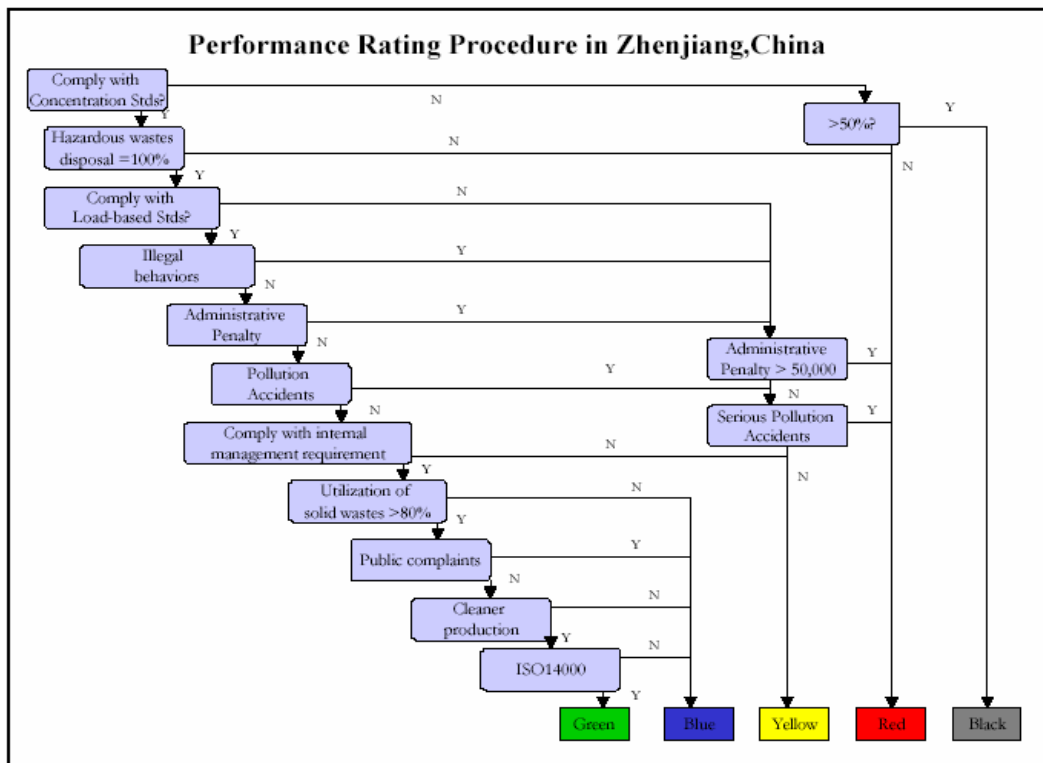
Listed companies who want to refinance in the stock market to invest in heavy polluting industries are required:

- To be compliant with all standards on listed companies;
- To assure no material and potential impacts on environment risen from new investments;
- To assure new investments would be helpful to improve the environment quality;
- To assure new investment would not be put into prohibited technologies and products.

Enterprises accessing to or refinancing in the stock market should report to the local environmental protection bureaus and hand on the necessary documents. Environmental protection bureaus of provincial level should take an on site inspection in 30 days and disclose the report in mass media in the next 10 days. After that,

Environmental protection bureaus of provincial level should report to the China Securities Regulatory Commission and the State Environmental Protection Administration.

Annex 5. Rating Determination of the China's Green Watch Program in Zhenjiang City



Indicator	Explanation
1. Discharge meeting the concentration standards	For each outlet, either (a) more than 80% of the pollutants meet discharge standards or (b) on average, the concentrations of the main pollutants meet the discharge standards. The disposal rate for hazardous solid waste is 100%
2. Frequently failing to meet the standard	More than 50% of the pollutants fail to meet standards.
3. Discharge meeting the load-based standards	(1) For firms holding a discharge permit, pollution discharge within the allowed limit; (2) For other firms, conformity with requirement 1 above ("discharge meeting the standard").
4. Illegal pollution	One or more instances of illegal pollution.
5. Pollution	Level 1: One or more pollution accidents, each of which

accidents	<p>imposes economic losses between RMB 1,000 yuan and RMB 10,000 yuan.</p> <p>Level 2 (any of the following): (1) One pollution accident that imposes an economic loss between RMB 10,000 yuan and RMB 50,000 yuan; (2) Poisoning of employees; (3) Pollution-induced conflict between the factory and the neighboring community; (4) Some environmental damage.</p> <p>Level 3 (any of the following): (1) One pollution accident that imposes an economic loss between RMB 50,000 yuan and RMB 100,000 yuan; (2) Radiation damage to employees; crippling of employees; (3) Poisoning of neighboring residents; (4) Serious impact on social stability; (5) Serious damage to the environment</p> <p>Level 4: One pollution accident that imposes an economic loss of RMB 100,000 yuan or more.</p>
6. Timely payment of discharge fee	For eight months of the year, the discharge fee is paid within the stipulated twenty-day period. For the rest of the year, the fee is paid within two months.
7. Discharge reporting and registering	Regular reporting and registering for all plants; monthly emissions reports by firms holding pollutant discharge permits.
8. Outlet control standardization	Designated emissions outlets should be visible, reasonably configured, and convenient for monitoring.
9. Implementation of the Three Synchronizations and the stipulated procedures for construction projects	(1) Timely completion of the environmental protection pre-audit; (2) Ratification of the plant's EIA within the stipulated period; (3) Full Implementation of the “Management Measures for Environmental Protection of Construction Projects.”

10. Environmental management	Important criteria: (1) Management structure; (2) Number of environmental protection personnel; (3) Implementation of systems and regulations such as the Post Responsibility System for Environmental Protection; System for the Operation and Management of Environmental Protection Facilities; System of Reporting Environmental Performance; and System for Management of Environmental Protection Documents.
11. Proper disposition of solid wastes	100% residual solid waste disposal and a solid-waste comprehensive utilization factor over 80%.
12. Public complaints	Validated complaints about pollution that has significant environmental impact.
13. Cleaner production	Completion of a clean production audit that meets advanced international and domestic standards.
14. ISO14000	ISO 14000 certificates awarded after passage of the qualification test.

Source: Public rating of industry's environmental performance: China's Green Watch Program

Annex 6. Responding Companies and industry in Survey 2004

Title: “Survey on Corporate Environmental Management in China”

Research organ: Institute for Global Environmental Strategies (IGES)
 Policy Research Center for Environment and Economy of the State
 Environmental Protection Administration (PRC)

Research staff: Yasuhiro Kanda (IGES), Ren Young (PRC), Chang Tong (PRC)

Survey period: November 2003 through February 2004

Survey targets: 1,010 corporations listed on Shanghai Stock Exchange and
 Shenzhen Stock Exchange

Valid responses (return rate): 61 companies (return rate: 6.0%)

Sectors	Survey Target Companies		Responded Companies	
	Number of the companies	Component Ratio %	Number of the companies	Component Ratio %
Electronics, Communication	61	6.0	3	4.9
Textile	125	12.4	9	14.8
Public works	19	1.9	1	1.6
Chemical	125	12.4	8	13.1
Construction	57	5.6	3	4.9
Transport	7	0.7	0	0.0
Finance, Real-estate	16	1.6	2	3.3
Energy, Electric power	45	4.5	4	6.6
Distilled Food	73	7.2	6	9.8
Agriculture, Fishery, Forestry	26	2.6	2	3.3
Light Industry	118	11.7	3	4.9

Commerce, Trade, Leisure	13	1.3	1	1.6
Medicine	60	5.9	4	6.6
Heavy industry	143	14.2	13	21.3
Conglomerate	122	12.1	2	3.3
Total	1,010	100.0	61	100.0

Source: Corporate Sustainability Management in China, Korea and Japan: A Questionnaire Survey Report

Annex 7. List of Abbreviations

BCSD	Business Council for Sustainable Development
CCGINK	China Corporate Governance Index of Nan Kai (University)
CERES	Coalition Environmentally Responsible Economies
CNOOC	China National Offshore Oil Corporation
CSPC	CNOOC and Shell Petrochemicals Company Ltd
CSRC	China Securities Regulatory Commission
EIA	Environmental Impact Assessment
EPB	Environmental Protection Bureau
ESIA	Environmental and Social Impact Assessment
GRI	Global Reporting Initiative
HSE	Health, Safety and Environment
IFC	International Finance Corporation
IGES	Institute for Global Environmental Strategies (Japan)
IPO	Initiate Public Offerings
ISO	International Organization for Standardization
MEA	Multinational Environmental Agreement
MOF	Ministry of Finance
NDRC	National Development and Reform Commission
NGO	Non-Governmental Organization
ODS	Ozone Depleting Substance
PERI	Public Environmental Reporting Initiative
PRC	The People's Republic of China
SA8000	Social Accountability 8000
SEPA	State Environmental Protection Administration
TVE	Township and Village Enterprise
VDI	Voluntary Disclosure Index