

**Report on the Implementation of China's  
Pollutant Discharge Permit System in Selected  
Chinese Cities  
(Abridged Edition)**

CRAES



EPPI



NRDC



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[www.nrdc.org](http://www.nrdc.org); [nrdc.cn](http://nrdc.cn)

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# List of Acronyms

EPB	Environmental protection bureau
EPD	Environmental protection department
MEP	Ministry of Environmental Protection
PDP	Pollution Discharge Permit
SEPA	State Environmental Protection Agency
TEC	Total Emission Control

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# 1 Introduction

The pollution discharge system is a key foundation for the protection of the environment in the United States and the European Union. China's pollution discharge system has a history of over twenty years. Shanghai authorities initially implemented the first instance of China's water pollution discharge system in 1985. In 1989, the national government established the *Rules for Implementation of the Law of the People's Republic of China on the Prevention and Control of Water Pollution*, which made the system national. In 1990, State Environmental Protection Administration (SEPA) China's began to implement measures to control the total amount of air pollutants. And such system was gradually applied to other aspects such as solid wastes. The pollution discharge system has been used as an ex-ante regulatory mechanism. The government evaluates the discharge of pollutants by enterprises through administrative means, allocating discharge permits for a specified amount of pollutants. While the pollution discharge system has played a positive role in pollution control and environmental protection, the pollution discharge permit (PDP) system has not been integrated with the total pollutant control system or the natural environmental capacity.

We began this project by conducting a literature review and field surveys to: understand the implementation of the pollution discharge system in selected Chinese cities; determine the problems impeding the pollution discharge system; to compare and contrast China's pollution discharge system with that of other countries to elucidate lessons from international experience; propose policy recommendations to improve China's pollution discharge system. While our research background introduces the use of permit systems for managing the discharge of pollutant in various media, such as water and solid waste, we focus on air PDPs. Our conclusions and suggestions reflect the general problems with China's implementation and management of its pollution discharge system.

Legislation for environmental protection started relatively late in China; thus,

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there is little theoretical basis and practical experience with environmental protection in China. It is, therefore, of great significance for us to learn from countries with well-developed pollution discharge systems. Due to research limitations, we chose to focus on the pollution discharge systems in the United States and Taiwan. The United States is one of the more advanced systems, especially with regard to its water pollutant pollution discharge system. We take several aspects as the cutting point for us to study and learn: the background and basis of pollution discharge system; level of legislation and legal basis; form and scope of issuance of pollution discharge; legal liability for breach of the permit system; public participation mechanism; the establishment and perfection of relevant systems such as the pollutant discharging right trading system.

Taiwan's implementation of its pollution discharge system has been notably effective, producing positive environmental, social and economic benefits. Taiwan's effective implementation of the pollution discharge system has promoted the development of a domestic private environmental monitoring industry. Additionally, the environmental monitoring information in Taiwan is relevantly open to the public. Public participation and environmental citizen suits are legally guaranteed. This has provided favorable conditions for the public to monitor the implementation and administration of the PDP system.

Through field surveys, our project team discovered that China's PDP system, in its implementation, plays a positive role in environmental protection. Many problems, however, persist. China's PDP system has been moving in a positive direction and has become an important mechanism for environmental management in China—it has provided polluting enterprises with quantitative discharging indexes and legal standards. In this way, this system has played an important role in improving environmental performance. For instance, in its implementation of the *Credit Management Methods of Guangdong Environmental Protection Bureau for Environmental Protection of Key Pollution Sources*, the Guangdong government, began rating enterprises into three classes: credited, warning and controlled; which are

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marked by green card, yellow card and red card, respectively. Enterprises marked with red cards must report to CSRC, and will not be able to attain IPO or refinancing application. This method has brought about many benefits: regulating the credit information on the environmental protection of key pollution sources; strengthening the monitoring role of the public; urging enterprises to continue the constant improvement of environment. Furthermore, the local environmental protection departments (EPDs), which administratively lie below the Ministry of Environmental Protection, of the selected cities stated that the pollution discharge system was helpful in ensuring that targets for reducing emissions of sulfur dioxide and other pollutants were achieved during the Eleventh Five Year Planning period.

There are several key problems with the current pollution discharge system:

A. The current legal status is unclear, and lacks a sound legal basis. In China, there are no clear stipulations on the PDP system with existing environmental laws. The main legal basis of the air PDP system is clause fifteen of the *Air Pollution Prevention and Control Law*, which stipulates that a permit shall be issued to enterprises after their total amount of air pollution emissions has been determined to be within the allowable limits. The Pollution Control Department of SEPA was supposed to draft, in January 2008, “The Regulation for the Management of Pollution Discharges,” but no official regulation can be developed. The main laws supporting the implementation of an air pollutant discharge permit system are local laws and regulations. And there are big differences among local laws and regulations, which are also not that normative and practical. Strictly speaking from a legal sense, China’s existing pollution discharge system still lacks national-level legislation support. Although there are some stipulations in this respect, the system itself and its supporting systems as whole is not sound. This gets it in a dilemma.

B. The coordination between this system and others is not perfect. A combination blow cannot be used during the implementation of it. Compared to other environmental management systems, the emergence and development of pollution discharge system occurred at a later stage. It emerged with the establishment of the

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total emission control system. And its form and monitoring methods came into being in the process of the implementation of a series of trial projects. Due to limited environmental management capacity of localities, the pollution discharge system has not developed into an all-round systematic permit system but just a process in which the permit is issued or renewed. The PDP system, as a relatively latecomer in China's environmental management system, its contents are not well integrated with other environmental management mechanisms. For example, there are variations resulting from variations in assessment methods, procedures and other aspects of the environmental impact assessment (EIA), pollution fees and environmental data systems, which effectively cover the whole management process of pollutant discharge. The data or information of the three is not uniform or centralized. So each locality has to choose one from the three according to its actual conditions when carrying out the pollution discharge system. From the surface, it has a connection to other systems. But actually they are not organically connected. The reasons are: on one hand, these systems themselves have their own inherent weaknesses; on the other, managerial functions of such systems are carried out by different offices or EPDs, which makes it even harder to coordinate during the implementation of the permit system.

C. The rulings of many high-level regulations are inconsistent and provide different grounds on which to issue PDPs. For example, the stipulations on which EPDs should issue the PDP is stated in the recently revised 2008 edition of *The Water Pollution Prevention and Control Law*. This law stipulates that the measures for issuing a permit shall be specified by the State Council, while the issuance of the permit shall be handled the EPDs. The 2000 Air Pollutant Prevention and Control Law, however, limits the authority to issue permits to the "relevant local government." Thus, there is no a uniform organ for the issuance of PDPs.

D. The assessment of the amount of discharged pollution is not scientific. Currently, the amount of discharged pollution is assessed according to whether the permittee's temporary/existing rate of pollution meets the permitted standards. It is not calculated based on the enterprise's economic benefit, contribution to the society,



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level of resource consumption, or the capacity of the local environment to sustain such pollution. Most of the emissions trading pilots issue PDPs to enterprises for free if these enterprises were established before the permit system. Subsequent permittees had to pay the market price to attain their permits. This unfair implementation of the PDP system makes it more difficult to arouse enthusiasm for environmental protection.

E. The resources at the local environmental agencies are inadequate. more often than not, the implementation of the PDP system is a mere formality. In the implementation of the permit system and total emission control, Local EPDs' were unaware of the need to provide greater resources to the total emission control system. Furthermore, enterprises are required to equip themselves with discharge monitoring technologies so that the EPDs can attain pollution data. This is, however, a large economic burden on many industries in undeveloped areas, and they are thusly reluctant to make the investment in these devices.

F. The management duties carried out after the permit is issued are insufficient. Some local EPDs conduct no management whatsoever after the permit is issued. The Local EPDs must conduct permit renewal responsibilities and over post-permit issuance supervisory tasks timely to avoid enterprises from illegally discharging pollutants without permits.

G. Permits have a relatively conscribed scope of management. Although there are stipulations on the monitoring of the implementation of the permit system in local laws and regulations, air pollutant PDPs, in practice, are mainly issued to large-scale polluters at the national and provincial levels. Monitoring over small enterprises is limited.

H. Legal responsibility is not clear, and the cost of violating the law is low, leading some enterprises to risk noncompliance. The primary penalty for illegal discharge of pollutants is the imposition a fine. These fines, however, are so low that it makes economics sense for some enterprises to continue to illegally discharge pollutants and accept the fine.

I. The permitting system lacks public participation. Only the polluting

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enterprise and the EPD have access to pollution monitoring data and other relevant resources—the public cannot access this information, and thus there is no potential for public monitoring.

Through the process drawing upon international experience for opportunities to improve the PDP system, we reached the following conclusions:

A. China should improve the pollution discharge system through legislation and by establishing its legal status. China should establish a clear legal basis of the permit system by revising the *Environmental Protection Law* and by supporting relevant ancillary laws and regulations.

B. China should develop a specific method for the uniform accounting of the total pollutant discharge. A scientific accounting method is required for the effective implementation of the PDP system.

C. China should integrate the PDP system with other relevant laws and regulations such as the “Three Synchronized Approach,” the pollutant discharge application and registration system, the pollutant discharge fee system, the EIA system, the environmental statistics system and the environmental protection responsibility system. The pollution discharge system should be placed at the center of these pollution control mechanisms to regulate the behavior of the polluting agencies.

D. China should strengthen the capacity building practices of environmental protection (governmental?) agencies. These agencies should designate personnel for the management and monitoring of the implementation of the PDP system to ensure that the management and monitoring work is carried out efficiently and orderly.

E. China should establish a data management platform for the PDP system, which includes a permit administration system, an air quality data system, a pollution data system, and pollution discharge fee data system, with public online accessibility.

F. China should determine the appropriate scope for the management of PDPs. Apart from the most severe sources of pollution such as coal power plants, cement plants and petrochemical facilities, and other point sources of pollution, PDPs must be administered at construction sites, gas stations and other types of point pollution

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sources.

G. China authorities should construct a centralized management system for PDPs. The environmental authorities should also cancel existing temporary PDPs and transform them into formal permits. This may encourage enterprises meeting the standards to continue to make improvements, reducing expenditures for manpower and fines.

H. China should delay implementing a national emissions trading scheme because the legal basis for emissions trading is still very immature. Moreover, the legal premises of the PDP system and total emission control system are not clearly defined. Without this legal foundation, implementing a national emissions trading scheme will be difficult.

I. China should enhance public participation efforts by: developing rules for agencies to respond to the public's comments and suggestions; granting citizens certain supervision and law enforcement rights; holding regular hearings; and giving the public the right to supervise polluters.

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## 2 Project Overview

### 2.1 Project Background

In the mid-1980s, China's environmental administrative department tried to introduce some ideas from western countries for its pollution discharge system in some trial cities. During this period, the State Environmental Protection Agency (SEPA) carried out trial sites in different scales for the water pollutant pollution discharge system. During the third session of its environmental working meeting in 1989, the government clearly listed a pollution discharge system as one of China's eight important systems for environmental protection.

In 1990, China carried out trial work on air pollutant total emission control and pollution discharge in 16 cities. In 1991, six of the cities were chosen as the trial sites for air pollutant discharge trading. But the implementation of such work was not ideal. The 2010 revised *Air Pollution Prevention and Control Law* made an independent stipulation on the pollution discharge system. It also clearly stipulated that the competent Environmental Protection Departments (EPD) under the State Council would develop methods for the management of pollution discharge, which meant the implementation of the permit system was going to have legal basis and be stricter in the future. In addition to that, such a system had already become a normative system for environmental management in western countries and played an important part in environmental monitoring and administration. With these circumstances in mind, NRDC has had full discussions with CRAES and EPPI on possible legal and policy cooperation in terms of air pollution. NRDC, CRAE and EPPI hope to base the legal and policy cooperation on the pollution discharge research carried out in major Chinese cities. This international cooperation may help provide an appropriate framework for China's pollution discharge system and provide technical support for the revision of the *Air Pollution Prevention and Control Law*.

This survey is mainly to provide suggestions for China to further push forward and perfect the pollution discharge system and stage relevant laws and regulations on the basis of,

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apart from U.S. experiences, the main experiences that we get through visiting EPDs of major Chinese cities and talking to the persons-in-charge of local key enterprises, analyzing the developmental history, legal status and implementation of the permit system and the main problems it faces.

## 2.2 Primary Research Findings and Target Cities

(1) Target cities: Guangzhou, Shijiazhuang, Lanzhou, Harbin and Datong. These 5 trial cities are located in different parts of China and have different economic strengths. See Picture 1-1.

(2) Research contents: Review and summarize the developmental history as well the promulgation and implementation of the pollution discharge system in China's major cities, including: relevant rules, regulations, procedures, indexes, types or categories, monitoring of implementation, reward and punishment mechanism, problems and other aspects.

(3) Analyze the differences between the pollution discharge systems in the Chinese Mainland, in Taiwan and in other countries, in order to learn their from their experiences.

(4) Put forward suggestions for the establishment of a framework for the pollution discharge system in China; provide scientific and technical support for EPDs in policy-making.



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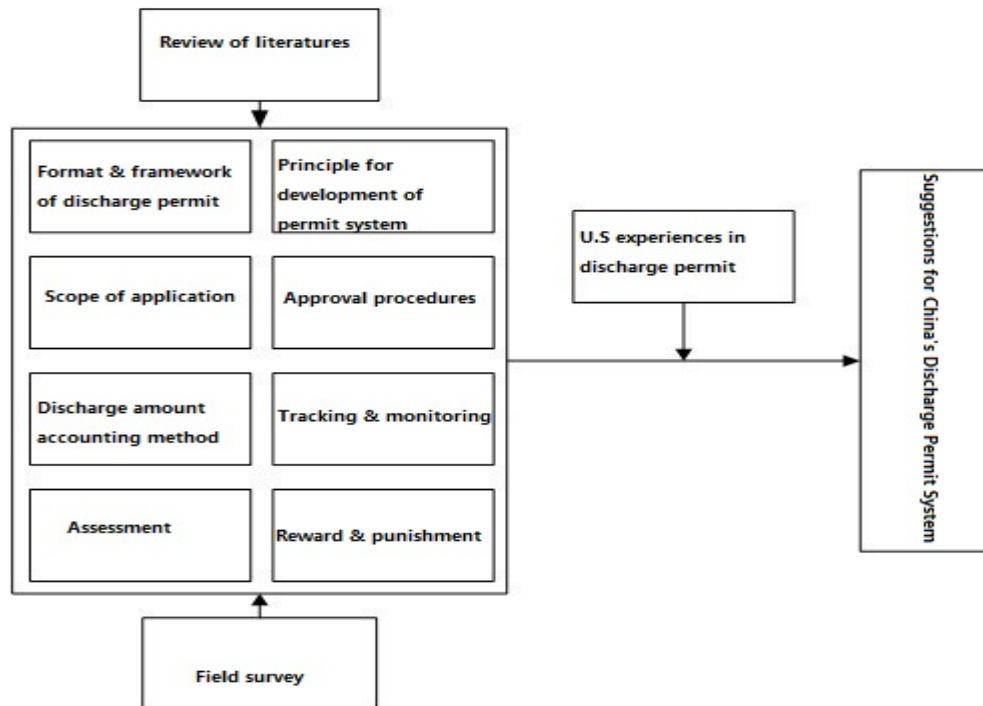
**Picture 1-1 Cities for the Survey**

## **2.3 Research Methodology**

This project's main goal is to provide scientific and technical support for environmental decision-making departments to make policies for China's pollution discharge system. To accomplish this task, this research project is carried out through a literature research and interviews (outline see Attachment 2) of key people in charge of (see Table 1-1) of relevant EPDs in major cities. During the process, we investigated the literature and made comparisons (see Picture 1-2) to learn from the experiences from other countries. the United States' experiences are particularly noteworthy, especially in new pollution source review and management of below-standard areas during the implementation of the permit system, in order to carry out our research on the pollution discharge system in China.

**Table 1-1 Basic Information about the Target Cities and Participant Departments**

<b>City</b>	<b>Governmental Department</b>	<b>Representative and Department of Enterprise</b>
Shijiazhuang	Pollution Prevention and Control Office, Pollutant Total emission control Office, Environmental Monitoring Office	Shijiazhuang Steel North China Power Group
Harbin	Total emission control Office, Harbin Academy of Environmental Science	Hafei Automobile Group AVIC HAIG
Guangzhou	Pollution Prevention and Control Office, Pollutant Total emission control Office, Division of Environmental Regulations, Law Enforcement Monitoring Department	Environment Monitoring Department, Guangzhou Paper Group EPD, Guangzhou Petrochemical Group EPD, Guangzhou Huangpu Power Plant EPD, Guangzhou Hengyun Enterprises Holding LTD Security and Environment Department, Guangzhou Iron & Steel Enterprises Group
Lanzhou	Division of Environmental Regulations, Total Emission control Office, Law Enforcement Monitoring Department	Security and Environment Department, Jiuquan Steel Chalco Lanzhou
Datong	Total Emission Control Office, Law Enforcement Monitoring Department	Datong NO.2 Power Plant



Picture 1-2 Main Research Methods

## 3 Analysis of China's Pollutant Discharge Permit System

### 3.1 Emergence and Development of China's Pollutant Discharge Permit System

In the mid-1980s, Chinese authorities began exploring pollution discharge permit systems used in other countries before implementing several water pollution permit pilot projects. In 1987, SEPA held a Symposium on the topic, and in March 1988, SEPA issued *Interim Measures for the Management of Water PDPs*. In June 1988, it held the “Work Meeting on Trial Point Cities for Water PDPs”, which marked the commencement of PDP pilot projects in China. Immediately after the meeting, 17 cities including Shanghai, Beijing, Shenyang, Xiangtan and Xiaoqing River basin in Shandong commenced pilot PDP projects. The initial pilot projects ended in 1991. Subsequently, a second wave of pilot projects began in Jiangsu and Shanxi provinces from 1991 to 1994 with 1,021 registered enterprises. In July



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1989, the State Council approved the *Rules for the Implementation of Water Pollution Prevention and Control Law*, article nine of which stated that any enterprise discharging pollutants to the water must have a pollutant pollution discharge. In September 1989, \_\_\_ held the “Second National Water Pollution Prevention and Control Meeting” in Henan province, expand the water PDP system across the country. After this meeting, Yunnan and Guizhou (1992), Liaoning (1993), Shanghai and Jiangsu (1997) also revised their local laws and regulations to include the implementation of PDPs for enterprises discharging pollutants. As of 1996, all Chinese cities at the prefecture-level or above have carried out the water PDP system. EPDs at all levels have issued 41,720 PDPs to 42,412 enterprises.

In 1990, SEPA began a pilot program of the air PDP system in selected cities. Beginning in 1991, cities including Baotou, Kaiyuan, Liuzhou, Taiyuan, Ping Dingshan and Guiyang had tried air emissions trading schemes. In 1993, SEPA expanded the air emissions trading pilot program to 6 additional cities. In April 2000, the National People’s Congress standing committee revised the *Air Pollution Prevention and Control Law*, to stipulate to manage air pollution through the total emission control permit system. Thusly, the PDP system was finally given a position in Chinese law. In January 2004, China developed a comprehensive PDP pilot program in Tangshan, Shenyang, Hangzhou, Wuhan, Shenzhen and Yinchuan.

Since the 11<sup>th</sup> five-year plan, party and state leaders have continued to stress the importance of the PDP system. In December 2005, the State Council issued *Decision on Enhancing Environmental Protection through Implementing the Scientific Approach of Development*, which stipulated that required local agencies? “to implement the total emission control policy...initiate the PDP system, and forbid polluting without a permit.” At the National Environmental Protection Assembly held in April, 2006, Prime Minister Wen Jiabao specified, “we need to carry out the pollution discharge permit system, intensify on-line monitoring over key polluting enterprises, and forbid polluting above threshold amount without a permit.” In 2008, article twenty of the *Water Pollution Prevention and Control Law* was revised to state, “China is implementing a pollution permit system.” As a

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critical means to carry out total emission control and the reduction of emissions, PDP has increasingly been codified into Chinese law.

As of April, 2004, the SEPA began preparing *Regulations on Pollution Discharge Permits* by conducting investigations, seeking suggestions from local EPDs and industry associations, convening a legislative hearing in Nanning and communicating deeply with the media and the public. In 2007, the Legislative Affairs Office of the State Council added the *Regulations on Pollution Discharge Permits* into the legislative plan. Later that year, SEPA re-programmed the legislative procedures and authorized Shenzhen Environmental Protection Bureau to draft the “*Regulations*.” Their opinions about the “*Regulations*” were collected. Through the year, SEPA updated the “*Regulations*” according to feedback from culled from multiple meetings and conventions with high-level stakeholders.

## **3.2 Legal Framework of the Pollutant Discharge Permit**

### **System**

Article fifteen of the *Air Pollution Prevention and Control Law* specified, “in line with principles of open, fair and just local governments shall verify and determine the total discharge amount of principal air pollutant from enterprises and institutions within the air pollutant total emission control areas, and issue principal air pollutant pollution discharge permits to them.” However, due to some reasons, corresponding “conditions and procedures” have not been published. Little legal evidence is available on the local implementation of the PDPs. It was hard to carry forward the PDP work. Under such circumstances, many cities explored actively according to local situations and stipulated a large number of normative documents. This was a practical experience for publishing officially the management regulations of pollution discharge.

**Table 2-1 Milestones in the Development of PDP Policies in Selected Chinese Cities**

	<b>Shijiazhuang</b>	<b>Harbin</b>	<b>Guangzhou</b>	<b>Lanzhou</b>	<b>Datong</b>
<b>1982</b>	<i>Interim Measures for the Collection of Pollutant Discharge Fines</i>				
<b>2000</b>	<i>Air Pollution Prevention and Control Law</i>				
<b>2001</b>			<i>Guangdong Province Pollution Discharge Permit Management Act</i>		
<b>2002</b>		<i>Heilongjiang Province Pollution Discharge Permit Implementation Proposals</i>			<i>Implementation Proposals for Trial Work on TEC and Trading of SO2 in Pilot Cities of Shanxi Province</i>
<b>2003</b>	<i>Utilization and Management Regulations for Charging Pollution Fines</i>				
<b>2007</b>	<i>Hebei Province Pollution Discharge Permit Management Act</i>		<i>Guangdong Province Regulations for the Utilization and Management of Pollution Fines</i>		
<b>2008</b>	<i>Management Regulations for Pollution discharge (Exposure Draft)</i>				
<b>2009</b>		<i>Measures on SO2 Trading in Heilongjiang Province</i>	<i>Rules for Implementation of Pollution Discharge Permits in Guangdong Province</i>	<i>Lanzhou Province Pollution Discharge Permit Act</i>	
<b>2010</b>			<i>Proposal for the Management of Pollution Discharge Permits in Guangzhou Province</i>		

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### 3.2.1 National Level

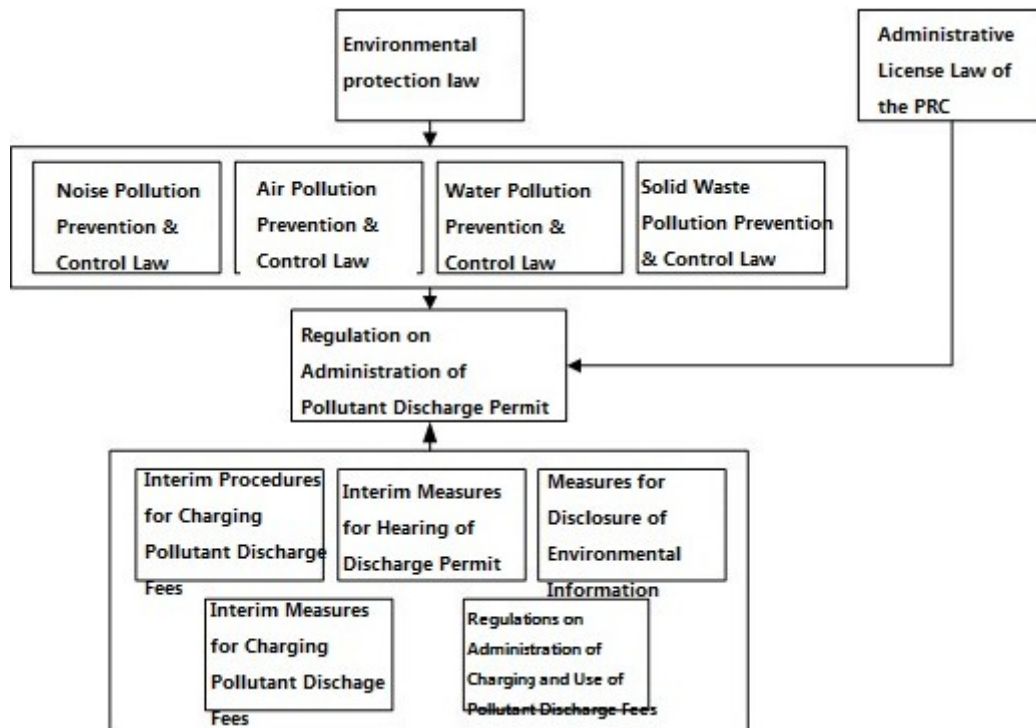
The existing *Law on Environmental Protection* in China has not stipulated regulations on pollution discharge permits. At the national level, leading laws and regulations correlated with pollution discharge permits are Article 15 of the *Water Pollution Prevention & Control Law* (Implemented on September 1, 2000), the *Noise Pollution Prevention & Control Law* (Implemented on March 1, 1997), the *Law on Environment Prevention & Control of Solid Waste* (Implemented on April 1, 1996), the *Marine Environment Protection Law* (Implemented on April 1, 2000), and the *Administrative License Law of the PRC*. In practice, the existing permit system is formulated mainly in accordance with the *Water Pollution Prevention & Control Law* and the *Air Pollution Prevention & Control Law*. Though the *Ambient Noise Prevention & Control Law* and the *Law on Environment Prevention and Control of Solid Waste* have also set out regulation of the discharge of particular pollutants, the current pollution discharge permits do not regulate noise pollution or solid waste pollution.

On July 1, 2004, the Chinese government implemented article 39 of the *Administrative License Law of the PRC*, which stated types of administrative licenses, such as permits, licenses, certificates, credentials or other approval documents issued by administrative agencies. Pollution discharge permits should be within the scope of the law, yet in practice, *The Administrative License Law* never played a role in improving the pollution discharge permit system. Legislation introduced later at the local level was based on the *Administrative License Law*, and the shape and content of the legislation was uncoordinated. While researching cities, we discovered only one case that used the *Administrative License Law* for support—*Heilongjiang Province's Plan for the Issue of Interim Pollution Discharge Permits to Enterprises in the Songhua River Basin Region*. The law also stated that since July 1, 2004, environmental protection administrative authorities above the county level may hold hearings according to the *Interim Measures for Environmental Protection Administrative Permit Hearing*. These regulations were rarely used when issuing pollution discharge permits and were only a formality in practice. On May 1, 2008, the Ministry of Environmental Protection launched the *Regulations on Open Environmental Information* to encourage public

participation by releasing information on the pollution discharge permits.

At present, we are coordinating with several relevant countries in implementing the pollution discharge permit. The regulations and laws used in this process include the *Interim Measures for Charging Discharge Fees* issued on July 1, 1982, which regulated fee targets, procedures and standards, conditions for stopping fees, reducing or doubling fees, financing for pollution discharge fees, management and use of fees as well as related standards for charging pollution discharge fees.

On July 1, 2003, Chinese authorities enacted the *Regulations on the Use and Management of Pollution Fees*, which stipulated that polluting entities should apply at county level or above local environmental protection authorities to emit specific types and quantities of pollutants. Environmental protection authorities must verify emissions type and quantity according to stipulated liability.



**Picture 2-1 Regulation Framework of National Pollution Discharge Permit**

Our analysis of state pollution discharge permits allows us to draw the following conclusions:

A. Our analysis finds no regulations on pollution discharge permits in China’s fundamental environmental protection law. This lack of explicit regulation on pollution

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discharge permits, which comprise a critical piece of many countries' environmental management systems, limits the effectiveness of China's efforts to manage emissions through pollution discharge permits.

B. China's *Air Pollution Prevention and Control Law* is limited. Air pollution discharge permits are issued according to article 15 of the *Air Pollution Prevention and Control Law*, which requires verification of certain emissions, located in a TEC area. This regulation makes the permit is issued only to enterprises within the control areas and makes the scope of air pollution discharge be the same with the total discharge index. So that it has many limitations at the very beginning as it has a very narrow application of pollution discharge. Moreover, in practice, discharge limits are often hard to defined, causing many to be modified during operation.

C. Relevant Chinese laws and regulations lack coordination and integration. The *Air Pollution Prevention and Control Law* and the *Water Pollution Prevention and Control Law*, for example, stipulate regulation of water and air pollution, yet, in practice, both are with the same permit.

D. China faces a shortage in operational standards. Despite central legislation stipulating principle regulations on pollution discharge, the legislature has been incapable of introducing the *Regulations on Administration of Pollution Discharge Permits*. Without the operational assistance that this comprehensive formal regulation would provide, inconsistent regulation through separate laws has seen marginal success.

### **3.2.2 Local Level**

With China's imperfect central legislation, the establishment and development of the burden of supporting the PDP system falls on a patchwork of local laws and regulations. Many cities have begun proactively conducting studies on the PDP system to explore directions for the future development of the PDP system. According our field study, there are four primary forms of legislation governing the PDP system: local regulations on environmental protection enacted by provincial peoples' congresses; regulations on air and industrial pollution prevention and control enacted by the provincial peoples' government; provincial governments' administrative regulations such as the *Management Methods of Pollution discharge* and the *Rules for the Implementation of Pollution discharge*; and administrative documents, such as the notices released by local environmental protection

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administrative authorities on strengthening the management of the PDP system. Strictly speaking, these notices are not local regulations.

We draw the following conclusions from our analysis of local legislation on the PDP system:

A. There has been expansion of the scope of implementation of the PDP system. Almost all local air pollution discharge permits are beyond the scope of the *Air Pollution Prevention and Control Act*. Permit has been issued and extended to all enterprises and institutions discharging air pollution. In implementation, it follows closely with the verification of total discharge amount.

B. The air and water pollution discharge permits have been combined. Through local legislation, namely, *the Methods for Administration of Pollutant Discharge Permits* and the *Rules for Implementation* Chinese authorities have combined the *Air Pollution Prevention Act* and the *Water Pollution Prevention Act*. Comprehensive pollution discharge permits provides for greater legislative and executive efficiency.

C. Chinese authorities have emphasized the importance of the PDP system in several key watersheds. In light of the increasingly severe environmental degradation of Chinese watersheds, local authorities have successively targeted the administration of PDPs. For example, local authorities administered a plan for issuing temporary PDPs in the Songhuajiang River and other rivers in Heilongjiang Province. These measures improve implementation of local pollution discharge permitting.

D. Operability standard has been ready for issuing pollution discharge in different regions. Local pollution discharges vary with each other, but they provide detailed requirements for permit administration and help set rules for permit issuance. It becomes the main legal basis for improving China's pollution discharge system.

E. Penalization of permit violation has been stricter. In implementing compliance of the permit, local authorities have strengthened monitoring of illegal emissions.

F. Legislative norms are still lacking. Discrepancies between social and economic conditions result in inconsistent administration authorities and permit issuance procedures in different regions. In Guangzhou, for example, the Guangzhou People's Government is in charge of issuing the permit, while in Shijiazhuang the Environmental Protection Administration Authority manages permit issuance. When crafting laws, many regions take

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little consideration of the agency issuing PDPs even though it has been stipulated in the *Administrative License Law*. (或者说) Local authorities have not revised or repealed local regulations conflicting with new national laws on \_\_\_\_\_ timely. Also, in practice, environmental protection authorities largely restrict permit issuance to “national-level key polluting enterprises” and “provincial-level key polluting enterprises.” Rules for issuing permits vary across China and up and down China’s political hierarchy. EPDs have no clear guidance on labor division for issuing and verifying pollution discharge permits.

G. The powerful role of China’s administration must not be overlooked. During our team’s analysis on local legislation, we found that the driving force in enacting relevant PDP legislation and executing local PDPs are the energy conservation targets, the emissions reduction targets, and the total emissions index. The two must be realized in implementing the “Eleventh Five-Year Plan for Environmental Protection.” Additionally, the pressure placed on responsible officials as well as the \_credit thing\_ drive the success of the forces, too. Also, large, polluting state-owned enterprises and parties responsible for environmental protection targets are also constraints. As a result, the monitoring party and the monitored party invest significant effort in law enforcement aiming to achieve their desired outcome.

The following analysis further describes the management of the PDP system in regional administration on pollution discharge:

(a) Hebei Province

On November 3, 1996, the Hebei provincial authorities issued the *Hebei Air Pollution Prevention and Control Regulations*, article seven of which, mentioned pollution discharge permits for the first time. This article stipulated the following:

entities discharging air pollutants must, in accordance with national and provincial regulations, apply for a pollutant discharge permit from the relevant environmental protection authorities. Those with permits must discharge pollutants in compliance with the permit’s specified allowable TEC index, types of pollutants, quantities, concentration, emission methods and time.

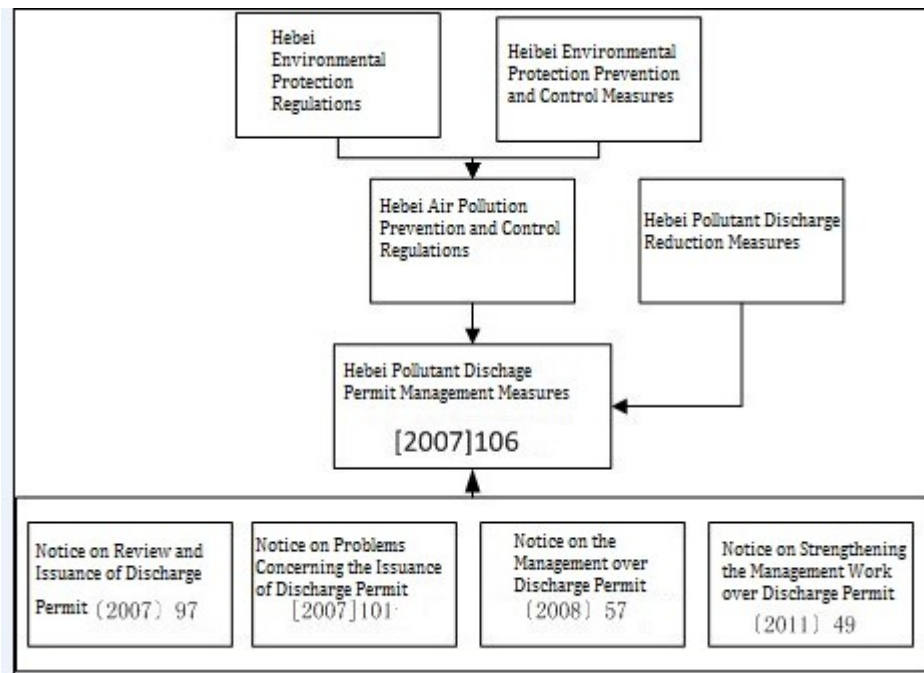
However, following this announcement, Hebei Province did not issue supporting measures for a pollutant discharge permit system. In 2007, Hebei launched the *Hebei Pollutant Discharge Permit Management Measures* (JIHUANBANFA [2007] 106), which marked the beginning of Hebei province’s official pollutant discharge system. Subsequently,



Hebei province issued many notices on its PDP system, for instance: *Notice on the Review and Issue of Pollutant Discharge Permits* (JIHUANKONGHAN [2007] 97); *Notice on Problems Concerning the Issue of Pollutant Discharge Permits* (JIHUANKONG [2007] 101); *Notice on the Management over Pollutant Discharge Permits* (JIHUANKONGHAN [2008] 57). Through these measures, Hebei province's PDP system progressed.

On January 7, 2008, the Hebei released *Hebei Environmental Sources Protection Prevention and Control Measures*, article ten of which, stipulated that, enterprises discharging pollutants shall attain pollutant discharge permits in according with the law and shall discharge pollutions in line with permit regulations, which shall specify allowable pollutant types, quantities, concentration, and other discharge control requirements.

The *Hebei Pollutant Discharge Reduction Measures* released in 2009 stated more explicitly the penalty standards for unpermitted pollutant discharge.



**Picture 2-2 Law and Regulation Framework of Hebei Pollution discharge**

(b) Guangdong Province

On January 1, 2005, Guangdong province implemented the *Guangdong Environmental*

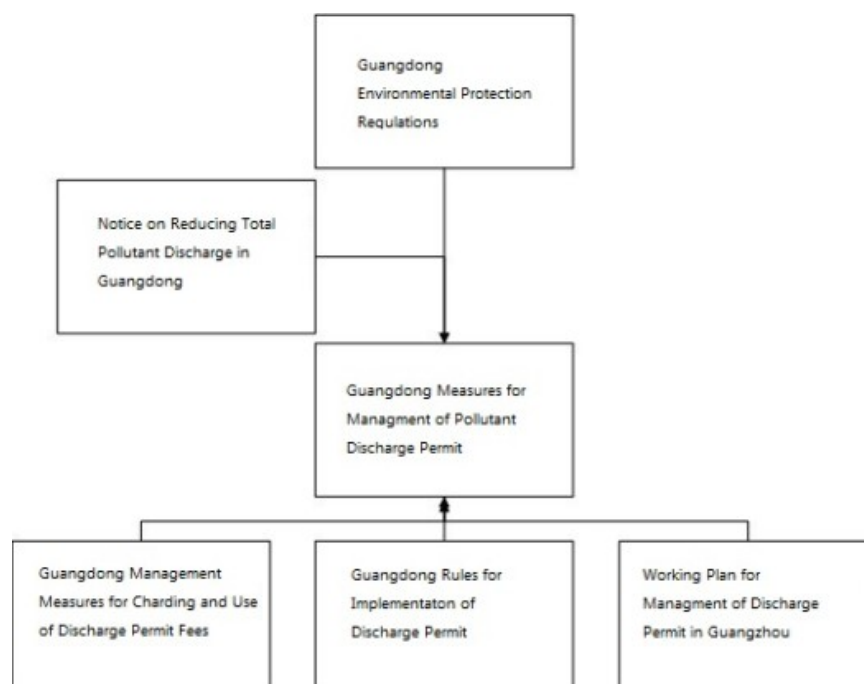
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*Protection Regulations*, article eighteen of which stipulated that, enterprises discharging pollutants shall, in accordance with central government regulations, apply for pollutant discharge registration and permits, discharge pollutants in line with permit regulations, and pay for discharge fees as directed. Without pollutant discharge permits, enterprises are forbidden from emitting pollutants.

Chinese environmental protection agencies shall PDP applicants of whether or not their PDP application has been approved in writing within 20 days of receiving the PDP application. Following their notification of the permit applicants, environmental protections shall make their decision public.

The *Notice on Reducing Total Pollutant Discharge in Guangdong During the 11<sup>th</sup> Five-year Plan Period* (YUEFU [2007] 99) stated that enterprises failing to eliminate backward production facilities regularly shall be shut down by revoking their business licenses and pollutant discharge permits and publicizing the government's action. Local government agencies shall also stop the operation of backward power plants according to the law. Regions that have not completed shutting down backward production facilities shall allow for the operation of these backward facilities through "regional restrictions." Energy-intensive enterprises shall be subject to a differential electricity pricing policies to inhibit the blind expansion of energy-intensive enterprises; to strengthen the supervision point sources of pollution emissions; to establish an online database for critical pollution data; provincial data on sulfur dioxide emissions, chemical oxygen demand and other environment quality indicators shall be published regularly; provincial-level administrations for industrial and commerce shall carry out the joint working system and project approval accountability system for the administration over new projects, while collaborating with EPDs to implement the EIA system, the environmental protection "Three Synchronized Approach" mechanism and PDP system. Enterprises failing to achieve EIA approval and acceptance of their "Three Synchronized Approach" or receive pollution discharge, shall be, in strict accordance with the *Measures on Prohibiting Unlicensed Business Operations* (Order No. 370 of the State Council), which allows for the revocation of business licenses under specified situations.

*Guangdong Measures for the Management of Pollutant Discharge Permits* (Yuefu Document [2001] 286, approved July 4, 2001); *Guangdong Rules for Implementation of Pollutant Discharge Permits* (YUEHUAN [2009] 74); *Guangdong Management Minutes for the Levy and Use of Pollutant Discharge Fees* (Implemented as of August 1, 2007)



**Picture 2-3 Regulatory Framework of the Guangdong Pollutant Discharge Permit System**

(c) Gansu Province

Article twenty-nine of the *Guansu Environmental Protection Regulations* (Published on August 3, 1994) announced the implementation of the pollutant discharge permit system which regulates polluting enterprises and self-employed businessmen. Pollutants dischargers must, in accordance with relevant state regulations, successfully apply for a pollutant discharge permit before emitting pollutants. Enterprises with pollution discharge permits must comply with the regulations as stated in the permit.

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Article sixteen of the *Guansu Environmental Administration Methods for Key Pollution Sources (1994)* (GANHUAN (1994) 054) stated that enterprises listed as a key source of industrial waste water pollution shall gradually comply with total emission control regulations and are required to reduce future emissions through internal efforts. This article continued to state that in appropriate locations, local government agencies shall establish pilot emissions trading schemes and pollution discharge permits.

Gansu's Eleventh Five-year Plan (issued July, 2008) instructed \_\_\_ to strengthen environmental law enforcement; enhance interdepartmental cooperation; improve joint enforcement mechanisms; redouble monitoring of environmental law enforcement; and put into force the "Four-Principle System for Environmental Administration"; which is comprised of the environmental administration system, total emission control system, emissions application system, and pollution elimination deadline system. This plan instructs the dynamic management of pollution sources through the pollutant discharge permit system and other governance mechanisms.

(d) Heilongjiang Province

Article sixteen of the *Heilongjiang Environmental Protection Regulations*, implemented as of April 1, 1995, introduced the Heilongjiang pollutant discharge permit system, with the following stipulations:

Regulations shall integrate the control of pollution emission concentration with emission quantity. Environmental protection authorities shall carry out TEC even in areas of heavy industry and high levels of pollution emissions. Environmental protection authorities shall propose TEC standards and discharge limits of pollutants to submit to the People's Government for approval. Enterprises then must follow the determined TEC standard.

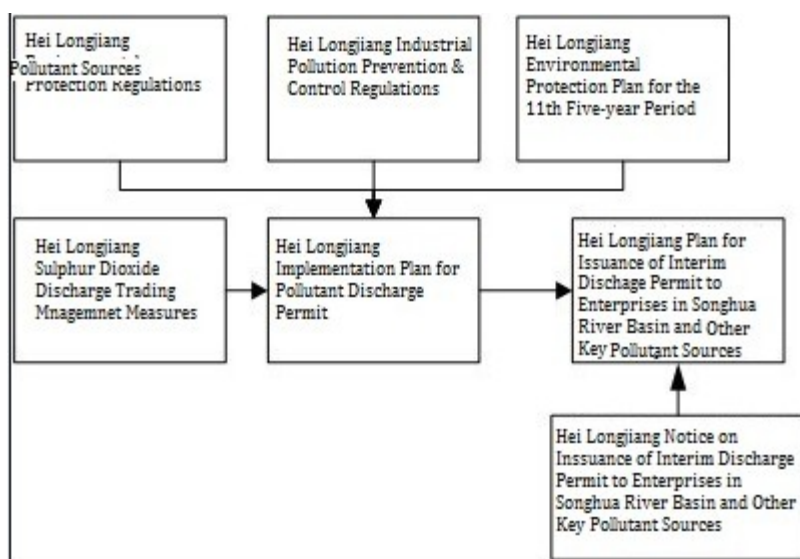
Article twenty-three and twenty four of the *Heilongjiang Industrial Pollution Prevention Regulations*, adopted on November 3, 1996, enacted regulations on pollutant discharge permits:

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Industrial enterprises shall be subject to the pollutant discharge permit system. Environmental protection authorities are responsible for determining the TEC standards of major pollutants for industrial enterprises within a given region. Environmental protection authorities shall issue pollutant discharge permits to enterprises discharging pollutants lower than the allotted value and temporary pollution discharge permits to enterprises emitting pollutants at levels higher than the allotted value and must reduce emissions levels within a specific time frame.

In the following years, however, Heilongjiang Province has not launched any supporting measures aside from the *Heilongjiang Environmental Protection Plan for the 11<sup>th</sup> Five-year Period* (issued in 2005). It emphasized the importance of the TEC and PDP systems, established a provincial TEC plan for key pollutants, and made polluting entities wholly responsible for their total emission control. The plan also stated that polluting enterprises are not permitted to exceed their allotted TEC emission quantities, and that that PDP system should be gradually expanded in reach.

In 2009 the Heilongjiang Environmental Protection Bureau released the *Heilongjiang Plan for Issuance of Interim Pollution Discharge Permits to Enterprises in the Songhua River Basin and Other Key Pollutant Sources*. This plan marked the beginning of the province's official PDP system. Later, the Heilongjiang EPB launched the *Heilongjiang Notice on Issuance of Interim Pollution Discharge Permits to Enterprises in the Songhua River Basin and Other Key Pollutant Sources* and the *Heilongjiang Sulphur Dioxide Discharge Trading Management Measures (Trial)*, which stimulated to some extent the development of the local PDP system.



**Picture 2-4 Law and Regulation Framework of Heilongjiang Pollution discharge**

(e) Datong City

The implementation of the PDD system in Datong City is based on environmental protection laws and regulations, including: *Environmental Protection Law*, *Water Prevention and Control Law*, *Air Prevention and Control Law*, *Rules for the Implementation of Water Pollution Prevention and Control Law*, *Administration Permission Law*, *Shanxi Environmental Protection Regulations* and *Shanxi Air Prevention and Control Regulations*. Additionally, according to the above mentioned laws and regulations, Shanxi province, in which Datong is a prefectural-level city, formulated and implemented the *Management Methods of Shanxi Pollution discharge* and *Rules for the Implementation of Management Methods of Pollution discharge in Shanxi*, which outlined the following requirements for a PDD system: permit categories, forms, contents, terms of validity, application requirements, administrative authorities, administration rights, and penalty methods.

The PDD system aims to control the total quantity of emissions on the basis that enterprises discharging pollutions have met with other standards. In conforming with the *Determination Plan of Pollution Discharge Permit Control Index*, Datong verifies enterprises' emissions quantities in consideration of approved discharge amount for the local environment and real-time data from pollution monitoring stations.

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### **3.3 China's Pollutant Discharge Permit System: Scope and Form in Selected Cities**

1. In accordance with regulations of the *Air Pollution Prevention & Control Law* and the *Water Pollution Prevention & Control Law*, cities independently determine scope and form of their PDP system. PDPs aim to integrate the management of emissions concentration with the total emission control. Shijiazhuang, Guangzhou, and Lanzhou regulated all point sources of emissions, while Harbin regulated key areas according to industry concentration, emissions amount, and environmental quality.

2. The PDP approval process in our selected cities is comprised of the application, review, approval, publication of results, and issuance of the PD certificate. Shijiazhuang and Guangzhou should conduct field investigations into relevant enterprises. The current method promoting public participation is merely through publishing the results of the PDP application. Lanzhou has integrated the application form with the approval form to simplify the process.

3. Our selected cities have established tracking and monitoring systems, which is comprised of annual examinations, archives management, and emissions statistics.

4. All of our select cities, excluding Harbin, have enacted regulations on the penalties for lack of compliance with the PDP system. Guangzhou and Lanzhou, specifically, have detailed regulations about the scope and amounts of penalties.

5. Harbin and Guangzhou have established guiding principles and detailed methods for the calculation of emissions quantities. Shijiazhuang and Lanzhou, however, have not.

6. Heilongjiang Province has explored establishing an emissions trading system by enacting several related regulations.