

Note: Key data/information in this sample page is hidden, while in the report it is not.

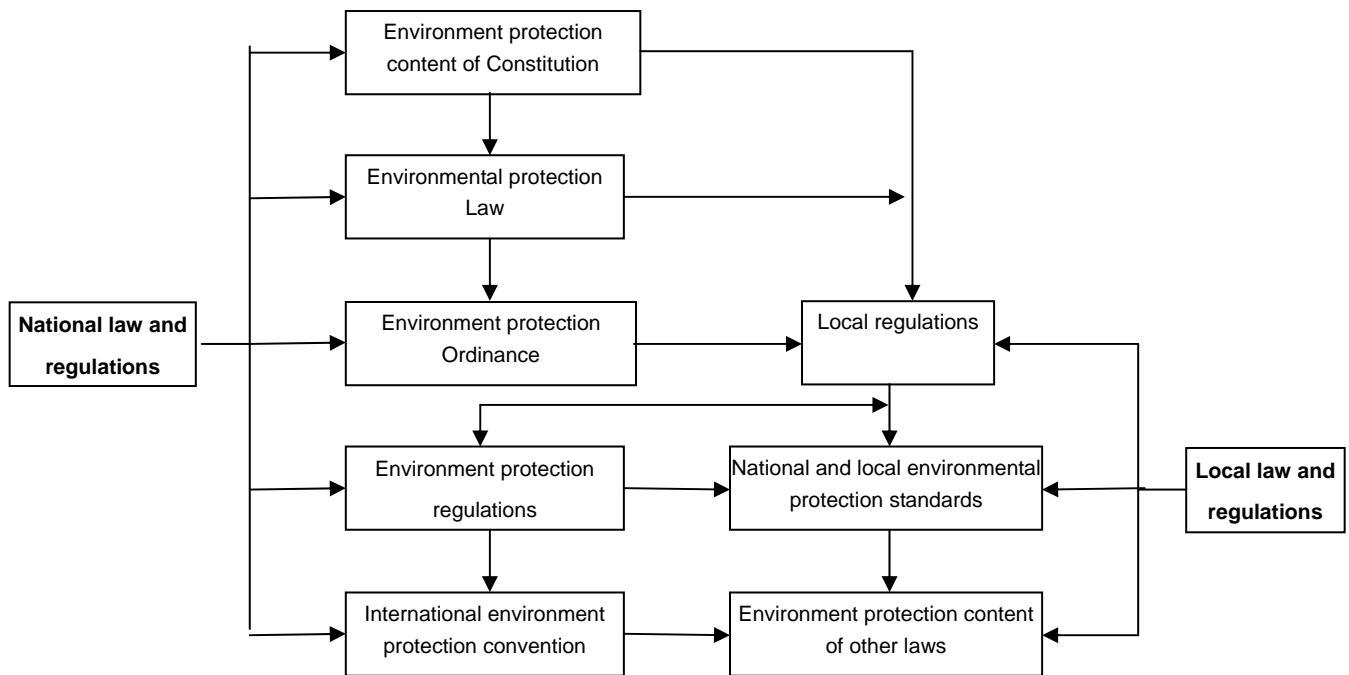
## I Environmental protection regulations in China

### I-1 Analysis of national regulations

#### I-1-1 Overview of national environmental protection regulations

##### 🌀 Hierarchical structure of environmental protection law system

Figure I-1-1-1 Hierarchical structure of environmental protection law system



Source: CCM international

Remark: The arrowhead goes from high level to low level

Chinese environmental protection law system is composed of national law, national regulations, local law and local regulations.

National law and regulations have higher level than local law and regulations.

The level ranks from high to low are:

Constitution > Law > Ordinance > Regulations > Standards

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## I-2 Analysis of local regulations

Table I-2-1 National and local integrated wastewater discharge standards (mg/L)

Title		Nation			Taihu	Shanghai		Zhejiang	Guangdong		Shandong		Liaoning		Tianjin		
		I	II	III	Peak	I	II	Peak into sewage network	I	II	I	II	I	III	I	II	III
BOD5	Sugar manufacturing from sugarcane	20	60	600					20	60							
	Sugar manufacturing from beet, ethanol, MSG	■	■	■					■	■							
	Others	■	■	■		■	■		■	■	■	■	■	■	■	■	■
COD	Sugar manufacturing from beet	■	■	■													
	MSG, ethanol, Biopharming	■	■	■	■				■	■				■			
	Beer											■		■			
	Citric acid					■	■										
	Others	■	■	■		■	■		■	■	■	■	■	■	■	■	■
N-NH3	MSG																
	Citric acid, ethanol																
	Others	■	■	■		■	■		■	■	■	■	■	■	■	■	■
TN		■	■	■	■	■	■		■	■	■	■	■	■	■	■	■
TP		■	■	■	■	■	■		■	■	■	■	■	■	■	■	■

Source: CCM international

Remark: Only the mentioned regions have special 'local integrated wastewater discharge standards'. The other areas only implement the national 'Integrated Wastewater Discharge Standard'.

Class I: Applicable to wastewater discharging into class III water area, which are protection area of drinking water, fish protection area and swimming area

Class II: Applicable to wastewater discharging into class IV and V water area, which are water area for industry and agriculture use, landscape water etc.

Class III: Applicable to wastewater discharging into wastewater treatment plants

Peak\*: Means discharge can not exceed Class III standard

Though various regions have issued quite a certain local environmental law/regulations, the law enforcement intensity of most local law/regulations is similar with that of national law/regulations, but with some in developed regions (Yangzi River Delta, Guangdong, Beijing, Tianjin, Shandong and Liaoning) more strict. Actually the main content of these local law/regulations with detailed improvement are quite similar to that of national law/regulations because they are formulated based on aligned national law/regulations, and only some discharge standards are much higher than national standard. These local law/regulations, which have different contents or standards, have been selected for deep survey in **Chapter I-2-1 Description of key local regulations.**

CCM compiles all national and local integrated wastewater discharge standards and compared them in Table I-2-1.

The national integrated wastewater discharge standard is outdated. It has never been changed after its implement on Jan. 1st, 1998. Many specialists suggest modify it as its standards can not meet current environmental protection requirement.

Though the national standards is outdated, only six provinces issued local integrated wastewater discharge standard, and they are Jiangsu, Shanghai, Zhejiang, Guangdong, Shandong and Liaoning. It also shows the six provinces pay more attention to environmental protection.

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**I-3 Analysis of durability of respective regulation**

**I-3-1 Changes of regulations- Past, present, future**

In the Table I-3-1-1, in line 'Promulgation and amendment date', the first row means the first effective time, and the second row means the amendment time, if there is a third row, it means the first amendment time, and the fourth row means the second amendment time, and so on. Take "Law of the people's republic of china on prevention and control of water pollution" for example, its first effective time is 1984-11, and it was amended in 1996-5 and amended again in 2008-7. The durability of the first edition is 138 months, that of the second edition is 146 months; and the third edition is still effective now, so we do not give the durability.

Table I-3-1-1 Durability of regulations

Regulation	Durability (months)	Promulgation and amendment date
Environmental Protection Law of the People's Republic of China	123	1979-9 1989-12
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Catalogue for the Guidance of Foreign Investment Industries	[REDACTED]	[REDACTED]
Catalogue of Resource Comprehensive Utilization	[REDACTED]	[REDACTED]
Ordinance on the Collection and Management of Pollution Discharge Fee	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
[REDACTED] [REDACTED]	[REDACTED]	[REDACTED]
Notice on Further Strengthening Restriction of Saccharin Production and Sales	[REDACTED]	[REDACTED]

People's Republic of China Food Safety Law	█	█
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Discharge Standards of Water Pollutants for Pharmaceutical Industry With Chemical Synthesis Production	█	█

Source: CCM international

Remark: The content changes of each law/regulation is shown in 'I-1-2 Description of key national regulation'

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#### I-4 Recent regulation dynamics and future trends

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There were several signs during this stage:

- ✓ The three simultaneousness system of construction projects and proposes solution was first put forward in 1972 and reimposed in 1973. ....
- ✓ Pollution treatment within a time limit. In 1973, the State Development Planning Commission (SDPC) put forward to make .....

- ✓ Establishment of environmental protection institutions. In 1973, .....
- ✓ Making environmental protection plan. ....
- ✓ Environmental protection laws gradually come into being. ....

☞ **Development stage, 1979~1991**

The Third Plenary Session of the Eleventh Central Committee established that the focus of the party and the country work should be shifted to construction of socialist modernization. With the shift of state development strategy, system construction of environmental protection policies and regulations entered into development stage.

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**I-5 Analysis of regulations having significant influences on technology**

Among over 700 central and local environmental laws/regulations, most don't mention any of the target technologies at all, and only a few have influences on target technologies to some degree. You can find them in Table I-5-2, and these regulations' influence on each technology is scored from 0~3 according to the standard in Table I-5-1.

Table I-5-1 Scoring standard for regulations' influence on target technologies

Title	0	1	2	3
<b>Technology innovation</b>	No	Low	Medium	High
<b>Environmental investment</b>	■	■	■	■
<b>Production restriction</b>	■	■	■	■
<b>Raw material safety</b>	■	■	■	■
<b>Selective industry or raw material</b>	■	■	■	■
<b>Total influence</b>	■	■	■	■

Source: CCM international

Remark: Total influence is not calculated by plus the score of the five indexes, but a comprehensive consideration of the former five indexes.

**I-6 Influence of the regulation on each industry: Feed/Food add., health ingredient**

Generally speaking, with the rising strict environmental protection requirements year by year, coupled with the stricter implementation of environmental protection regulations, the following changes arose in such industries as feed, food additive, health ingredient, etc.

- ✓ **Change competition situation.** .....
- ✓ **Increase environmental protection input.** .....

The input in controlling industrial pollution in China has been increasing since 2004 except 2008 due to global financial crisis. It shows Chinese government pays more attention to environmental protection year on year. ....